

TELEVISION PROGRAMME PRODUCTION ENGINEERING テレビ番組制作技術

1. PERIOD

January 13, 1992 to March 1, 1992 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be engineers serving in a broadcasting organization with at least five years of practical experience in TV engineering or those who have knowledge of TV engineering enough to undergo this training course
- 2) Be college graduates or those who have the equivalent technical knowledge in electronic engineering
- 3) Have a sufficient command of spoken and written English
- 4) Be healthy enough to undergo the course of training

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practices
 - TV studio equipment
 - Color TV cameras and solid-state imaging devices
 - Application of digital technique
 - Video tape recording and video tape editing
 - Direct satellite broadcast
 - Transmission and reception
 - Latest trends of broadcast technique
- 2) Observations
 - NHK Broadcasting Center
 - NHK Technical Research Laboratories
 - Manufacturers
- 3) Observation tours
 - NHK Regional Station and others
 - Other NHK facilities

5. FACILITIES AND INSTITUTIONS

- 1) NHK Communications Training Institute
- 2) Other NHK facilities
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

TELEVISION PROGRAMME PRODUCTION (GENERAL) テレビ番組制作(総合)

1. PERIOD

July 25, 1991 to September 26, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields (as a programme director)
- 3) be serving in a broadcasting corporation directly and continuously as a producer or director with practical experience of more than 2 years and less than 7 years in the field of television programme production.
- 4) Under 35 years of age
- 5) Good working knowledge of English
- 6) Continue working in the above mentioned field after returning to home countries

4. DESCRIPTION OF TRAINING

- 1) Lectures, discussions and practical training
 - General concept of education television
 - Production Techniques
 - Observation of Actual Production Sites
 - Practical training in programme production
 - Introduction of New Technology
- 2) Observation tours
 - An observation of local NHK stations, schools using school program and historical sites.

* Besides the above-mentioned, observation studies on programming at studios, discussions with producers and exchanges of opinions with specialists in broadcasting for education in Japan, are also scheduled in the training course.

5. FACILITIES AND INSTITUTIONS

- 1) NHK Communications Training Institute
- 2) Other NHK facilities
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

All participants are requested to submit TV programmes which was produced by you or your own TV station to NHK Communications Training Institute upon their arrival Tokyo.

TELEVISION ENGINEERING テレビ放送技術

1. PERIOD

July 25, 1991 to October 11, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be engineers serving in a broadcasting organization with practical experience of more than 3 years and less than 5 years in TV engineering or those who have knowledge of TV engineering enough to undergo this training course,
- 2) Be college or university graduates or those who have the equivalent technical knowledge in electronic engineering,
- 3) Have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practises
 - Color television fundamentals and operation of equipment and materials for broadcasting use.
 - Programme production technique.
 - Fundamental of digital technique.
 - Measurement of broadcast equipment.
 - Recent technical development
- 2) Field Training
 - VTR and VTR editing
 - Programme production
 - Television transmitter) option
- 3) Study and observation tour
 - Various facilities of NHK
 - Broadcast-equipment manufacturers etc.

5. FACILITIES AND INSTITUTIONS

- 1) NHK Communications Training Institute
- 2) NHK Broadcasting Center
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 127

SOCIAL EDUCATION PROGRAMME 社会教育番組

1. PERIOD

January 13, 1992 to March 8, 1992 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) Be serving and producing social educational television programmes in a broadcasting corporation directly and continuously as a producer or director with practical experience of more than 5 years and less than 10 years,
- 2) Be under forty (40) years of age,
- 3) Be graduates of college or university or have an equivalent educational background,
- 4) Continue working in the above mentioned field after returning to their home countries,
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures, discussions and practical training
 - General idea and role of social Educational Television to get a general outlook of the current situation of ETV for adults in Japan.
 - Practice of Programme Production to acquire the know-how of producing programme.
 - Observation of Actual Production Site to get acquainted with the production system of NHK.
 - Introduction to New Technology/New Media surrounding broadcasting
- 2) Observation Tour to local station of NHK and primary school.

5. FACILITIES AND INSTITUTIONS

- 1) NHK Communications Training Institute
- 2) NHK Broadcasting Center
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

All participants are requested to submit TV programmes which was produced by you or your own TV station to NHK Communications Training Institute upon their arrival Tokyo.

TELEVISION BROADCASTING MANAGEMENT II テレビジョン放送管理Ⅱ

1. PERIOD

May 13, 1991 to June 27, 1991 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Staff with ranks higher than division-chief engaged in administrative or planning department of a television broadcasting organization.
- 2) College or university graduates, between 30 and 40 years of age
- 3) Good working knowledge of English.

4. DESCRIPTION OF TRAINING

- 1) Lecture and discussion
 - Television broadcasting
 - Management system of public and private broadcasting
 - The latest engineering system of broadcasting
 - The comprehensive activities of television broadcasting system
- 2) Field observation and study tour

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Ministry of Posts and Telecommunications

6. REMARKS

No. 129

BROADCASTING EXECUTIVES' SEMINAR II 放送幹部セミナーII

1. PERIOD

September 25, 1991 to October 12, 1991

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) Directors general or equivalent high-ranking officials responsible for management or administration of broadcasting in government or operational organizations
- 2) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussion
 - Present Situation and Future Prospects of Broadcasting in Japan
 - Management and Organization of Broadcasters in Japan
 - New Media of Broadcasting
 - Personnel Management and Training
 - Utilization of Broadcasting Programmes in Education
 - Presentation and Discussion of Country Reports
- 2) Observation tour
 - Broadcasting stations
 - Plants in computers, broadcasting equipments and communications
- 3) Study tours
- 4) Others

5. FACILITIES AND INSTITUTIONS

Ministry of Posts and Telecommunications

6. REMARKS

All applicants are requested to submit a report written in English on the present situation of broadcasting and its problems in an applicant's country

No. 130

AUDIO BROADCASTING ENGINEERING 音声放送技術

1. PERIOD

July 16, 1991 to September 16, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be engineers who have practical experience in the field of audio broadcasting enough (more than three (3) years) to undergo this training course
- 2) Be between twenty-five (25) and thirty-five (35) years of age
- 3) Be college graduates or those who have the equivalent technical knowledge in audio broadcasting
- 4) Continue working in the above mentioned field after returning to their home countries
- 5) Have a sufficient command of spoken and written English and (this item will be checked strictly)
- 6) Be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as disqualifying condition for the participation in the course

4. DESCRIPTION OF TRAINING

- 1) General orientation of broadcasting of Japan
- 2) Audio broadcasting system
- 3) MW transmitting
- 4) FM transmitting
- 5) Latest broadcasting technique
- 6) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) NHK Communications Training Institute
- 2) Other NHK Facilities

6. REMARKS

AGRICULTURE

1. PERIOD

May 13, 1991 to July 12, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University or professional school graduates, engaged in the offices of co-operative service
- 2) Be requested to work in the co-operative movement after participation in the course
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture & Discussion
 - Management of Agri. Coops
 - Economic Business & Credit Business of Agri. Coops
 - Mutual Insurance Business of Agri. Coops
 - Farm Guidance Activities of Agri. Coops
 - Establishment of Farming Complex
 - Educational, Better Living Activities of Agri. Coops
 - Establishment of the Regional Agriculture Promotion Plan
- 2) Field observation and study tour

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute for the Development of Agricultural Cooperation in Asia (IDACA)

6. REMARKS

No. 132

AGRICULTURAL EXTENSION SERVICE FOR LEADER II

農業普及指導者II

1. PERIOD

April 8, 1991 to July 19, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) be administrators for agricultural extension service or subject-matter specialist (S. M. S.) who are in charge of training for extension workers, and have more than five (5) years of experience
- 3) Under 50 years of age
- 4) Have a sufficient command of spoken and written English, and preferably working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Agriculture and its extension services in Japan
 - Basic theory of extension method
 - Extension activities in the countries of participants
- 2) Observation tours
 - Extension offices
 - Experimental research facilities
- 3) Field study
 - Administration and management of extension service and education by the local government
 - Visit to extension stations, experimental research institutions and private companies, etc.

5. FACILITIES AND INSTITUTIONS

- 1) Japan Agricultural Development and Extension Association
- 2) Extension and Education Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries

6. REMARKS

FARM HOUSEHOLD DEVELOPMENT 農家生活水準向上

1. PERIOD

August 20, 1991 to November 9, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be engaged in the improvement of rural living standards by developing women's abilities through planning and execution of instruction and training for rural women, agricultural extension officials and/or home living improvement extension officials,
- 2) be female under forty-five (45) years of age in principle, and have experience of more than five (5) years in this field,
- 3) have a sufficient command of spoken and written English,
- 4) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) Lectures, discussions, workshops, practices and field trip.
 - Technologies for the utilization of regional produce, etc.
 - Utilization technology for produce etc., which exists in the region
 - Improvement technologies for agricultural work and home living environments.
 - Methods for promoting practical use of regional resources by rural women and utilization activities.
 - Human resource training and case study.
 - Conditions of rural household life styles and utilized resources in participating nations.
 - Training and guidance plan for rural women leaders.
 - Creating and training in regional promotion and human resource development programs by women.
 - Main points in the improvement of rural standard of farmer's living in Japan.
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) The Rural Home and Family Living Improvement Study Association.
- 2) Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries

6. REMARKS

No. 134

RICE PRODUCTION 米生産

1. PERIOD

March 2, 1992 to October 23, 1992 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in agricultural training or extension service in the field of rice cultivation
- 3) Between 25 and 35 years of age
- 4) A sufficient command of spoken & written English.

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Agriculture in general
 - Rice agronomy
 - Soil and fertilizer
 - Varietal improvement
 - Rice physiology
 - Plant protection
 - Agricultural extension
 - Economy of rice farming
- 2) Experiment and field practice
 - Seedling and land preparation
 - Transplanting
 - Crop management
 - Harvesting and post harvest
 - Chemical analysis of soil
 - Field experiment on specific subjects
 - Laboratory experiments
- 3) Study Tour
 - Progressive farmers
 - Agricultural research stations
 - Rice marketing and agricultural cooperatives
 - Agro-machinery manufacturers

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

1. DUREE

du 2 mars 1992 au 23 octobre 1992 (8 mois)

2. NOMBRE DE PARTICIPANTS QUI SONT ACCEPTEE

cinq (5)

3. QUALIFICATION DES CANDIDATS

Les candidats doivent être:

- 1) Titulaire d'un diplôme universitaire ou équivalent,
- 2) Chargée des services de formation agricole ou de mise en valeur dans le domaine rizicole,
- 3) En bonne connaissance du français,
- 4) de moins de 35 ans

4. PROGRAMME DE FORMATION

- 1) Cours
 - Culture et Physiologie du riz
 - Sols et engrais
 - Protection des plantes
 - Machinisme
 - Vulgarisation
 - Infrastructure de la rizière
- 2) Pratique et Expérimentation
 - Préparation des pépinières et semences
 - Semis direct et repiquage
 - Manoeuvre des machines agricoles
 - Observation des plants
 - Analyse de sol
 - Récolte, séchage et Décorticage
 - Essais en groupe
- 3) Voyage d'étude
 - Paysan pilote
 - Station d'expérimentation agricole
 - Bureau de vulgarisation
 - Usine de fabrication des appareils agricoles

5. ORGANISME RESPONSABLE DU STAGE

Agence Japonaise de Cooperation Internationale (JICA)

6. AUTRE

En règle générale, la langue française sera utilisée au cours du stage, lorsque le cours sera donné en japonais, l'interprète francophone se présentera.

Le cours intensif de langue japonaise est organisé avant le stage de formation, pour 5 semaines pendant la matinée.

1. PERIOD

February 3, 1992 to November 20, 1992 (9 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates with an occupational experience of more than five years in the field of rice
- 2) Presently engaged in research work or education in the field of rice
- 3) Between 27 and 40 years of age
- 4) A sufficient command of spoken & written English

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Agriculture in general
 - Rice agronomy
 - Soil and fertilizer
 - Varietal improvement
 - Rice physiology
 - Plant protection
 - Statistical procedure for agriculture research
- 2) Experiment and field practice
 - Individual experiment on specific subject matter
 - Fundamental experiment on soil analysis, photosynthesis, pest collecting, artificial pollination, tissue culture, etc.
 - Field practice from sowing to post harvest
- 3) Study tour
 - Progress farmers
 - Agricultural research stations
 - Agricultural cooperatives
 - Agro-machinery manufacturers etc.

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

VEGETABLE CROPS PRODUCTION II 野菜生産 II

1. PERIOD

March 2, 1992 to September 25, 1992 (7 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates with occupational experience for more than three years in their specialities
- 2) Presently engaged in extension service, research work or training activity in the field of vegetable horticulture, or be agronomists who are to work in the said field having a good knowledge of vegetable cultivation
- 3) Between 27 and 37 years of age
- 4) A sufficient commands of spoken & written English

4. DESCRIPTION OF TRAINING

The course deals with the following subjects through lectures, experiments, practices and observations in study tours, on major vegetable crops in Japan

- 1) Applicable method of intensive growing of major vegetable crops
- 2) Fundamental knowledge on plant physiology, plant protection and soil in relation to high yielding in vegetable crops
- 3) Principal matters pertaining to rationalization of vegetable marketing and circulation

The following subjects are covered in the course.

- 1) Lecture
 - Agriculture in general
 - Vegetable growing in general
 - Vegetable growing in particular
 - Plant physiology and soil science
 - Plant protection
 - Post harvest technology and marketing
 - Breeding and seed technology
 - Technology development and transfer method
- 2) Experiment and practice
- 3) Study tour

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

All participants are requested to prepare some statistical data and references on vegetable and its seed production in their country for the presentation of country report.

VEGETABLE SEED PRODUCTION 野菜採種

1. PERIOD

February 3, 1992 to November 20, 1992 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates with occupational experience for more than three years in their specialities
- 2) Presently engaged in vegetable seed production, seed technology or varietal improvement
- 3) Between 27 and 37 years of age
- 4) A sufficient command of spoken & written English

4. DESCRIPTION OF TRAINING

The course deals with the following subjects through lectures, experiments, practices and observations in study tours, on major vegetable crops in Japan

- 1) Seed production method of major vegetable crops
- 2) Seed technology on sorting, drying, storage, and germination of vegetable seeds
- 3) Applicable method of varietal improvement of major vegetable crops

The following subjects are covered in the course.

- 1) Lecture
 - Agriculture in general
 - Vegetable growing in general
 - Vegetable seed growing method
 - Seed technology
 - Varietal improvement
- 2) Experiment and practice
- 3) Study tour

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

All participants are requested to prepare some statistical data and references on vegetable and its seed production in their country for the presentation of country report.

1. PERIOD

June 20, 1991 to February 23, 1992 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in research work or extension services in the field of sugar cane cultivation
- 3) Not exceeding thirty-five (35) years of age
- 4) Having a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

The course will be divided into three groups (sub-courses)

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| <ol style="list-style-type: none"> 1) Common Subjects <ul style="list-style-type: none"> - Agriculture in Japan and Okinawa - Sugar Cane Cultivation - Characteristics of Soil in Okinawa - Sugar Cane Industries in Japan and Okinawa - Observation Tour 2) Sugar Cane Agronomy <ul style="list-style-type: none"> - Sugar cane production structure analysis - Experiments for determination of climatic influence - Experiments for determination of recommendable sugar cane varieties - Cultivation technique for early cane harvest | <ol style="list-style-type: none"> 3) Soil and Fertilizer <ul style="list-style-type: none"> - General Information on fertilizer and soil - Soil survey - Laboratory researches and field works on soil and fertilizer - Statistical analysis by computer 4) Sugar Cane Diseases and Its Control <ul style="list-style-type: none"> - Occurrence of sugar cane diseases and damage caused - Effects of soil environment on sugar cane diseases - Ecology and control of soilborne pathogenic fungi |
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5. FACILITIES AND INSTITUTIONS

- 1) Okinawa Prefectural Agricultural Experiment Station
- 2) Okinawa International Centre (OIC), JICA

6. REMARKS

No. 140

PESTICIDE UTILIZATION FOR PLANT PROTECTION 農薬利用

1. PERIOD

January 9, 1992 to June 20, 1992 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 40 years of age
- 5) Good working knowledge of English
- 6) Request to attain skill to operate Gas Chromatograph during their stay in Japan

4. DESCRIPTION OF TRAINING

- 1) Orientation on Specific Subject
- 2) Training on Specific Subject
 - Lecture and Practice
 - Administration and laws pertaining to the use of pesticides
 - Bioassay of pesticides
 - Exposition of pesticides
 - Pesticides in crops, foods and environment
 - Application and application equipments
 - Observation Tours and Visits

5. FACILITIES AND INSTITUTIONS

- 1) Hyogo International Centre, JICA
- 2) Hyogo Prefectural Agricultural Institute
- 3) Department of Plant Protection, Faculty of Agriculture, Kobe university
- 4) National Institute of Hygienic Sciences, Osaka Branch

6. REMARKS

No. 141

CONTROL OF RICE DISEASES AND INSECT PESTS 稲病害虫防除

1. PERIOD

May 30, 1991 to December 6, 1991 (6.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - General view on rice cultivation in Japan
 - General principles of rice diseases and insect pests control
 - Rice diseases
 - Rice insect pests
 - Pesticides and Application methods
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Hyogo International Centre, JICA
- 2) Hyogo Prefectural Agricultural Institute
- 3) Department of Plant Protection, Faculty of Agriculture, Kobe University

6. REMARKS

PLANT GENETIC RESOURCES 植物遺伝資源

1. PERIOD

March 2, 1992 to August 28, 1992 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Presently engaged in conservation or management of plant genetic resources
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Introduction
- 2) Bases for management of plant genetic resources
- 3) Preservation, evaluation and utilization of plant genetic resources
- 4) Preservation, evaluation and utilization of fruit tree genetic resources
- 5) Elimination of diseases and pests from genetic stocks
- 6) Information management
- 7) Special training
- 8) Observations

5. FACILITIES AND INSTITUTIONS

- 1) National Institute of Agrobiological Resources (NIAR), Ministry of Agriculture, Forestry and Fisheries
- 2) Tsukuba International Centre, JICA

6. REMARKS

PLANT QUARANTINE (DISINFESTATION OF FRUIT FLIES)

植物検疫(ミバエ類殺虫技術)

1. PERIOD

May 9, 1991 to October 12, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or having the equivalent academic background
- 2) Having experience in the plant quarantine works and having sufficient knowledge about the pest such as fruit flies
- 3) being presently engaged in the disinfection programme of fruit flies or will be engaged in it as a technical expert
- 4) being not exceeding forty (40) years of age:
- 5) Having a sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

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| <ol style="list-style-type: none"> 1) Plant Quarantine in Japan 2) Morphology and Taxonomy of fruit flies 3) Physiology and Ecology of fruit flies 4) Artificial rearing of fruit flies <ul style="list-style-type: none"> - Outline of artificial rearing - Rearing of larva - Control of pupa - Rearing of adult and egg collection - Data analysis 5) Disinfestation method of fruit flies (Outline) <ul style="list-style-type: none"> - Fumigation treatment - Cold treatment and vapor heat treatment 6) Disinfestation test by vapor heat treatment and cold treatment <ul style="list-style-type: none"> - Outline of disinfestation test - Operation of treatment equipment - Inoculation of larva into the fruit - Method to find out standard of vapor heat treatment - Data analysis | <ol style="list-style-type: none"> 7) Injury test of fruits by vapor heat treatment and cold treatment <ul style="list-style-type: none"> - Outline of injury test - Injury experiment - Data analysis 8) Eradication of fruit flies <ul style="list-style-type: none"> - Principle of eradication method - Male annihilation method - Release method of sterile insects - Suppression of the density of fruit flies - Mass production - Sterilization and release of sterile flies - Discrimination between sterile flies and wild ones - Eradication project of fruit flies in Japan 9) Make the report · Exercise |
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5. FACILITIES AND INSTITUTIONS

- 1) Naha Plant Protection Station, Ministry of Agriculture, Forestry and Fisheries
- 2) Fruit-fly Eradication Project Office, Okinawa Prefectural Government

6. REMARKS

No. 144

SOIL ANALYSIS AND IMPROVEMENT 土壤分析改良

1. PERIOD

June 13, 1991 to August 26, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Be university graduates or have the equivalent academic background
- 2) Be engaged in investigation and practical works related to Soil Analysis and Improvement
- 3) Have a sufficient command of spoken and written English
- 4) Be not more than forty (40) years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Method/classification of soil analysis
 - Theory of soil reforming
- 2) Practices and Experiments
 - Soil analysis and its classification
 - Technics of soil reforming on farm land
 - Soil analysis technics by computer system
- 3) Observation
 - Ten days study tour for related research centers and tropical research institute of Japan

5. FACILITIES AND INSTITUTIONS

- 1) Center for antipollution measures, City of Obihiro
- 2) Hokkaido National Agricultural Experiment Station, the Department of Upland Farming
- 3) Hokkaido Prefectural Agricultural Experiment Station
- 4) Obihiro University of Agriculture and Veterinary Medicine
- 5) Tokachi Federation of Agricultural Cooperatives

6. REMARKS

1. PERIOD

September 2, 1991 to December 1, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates in the field of agronomy or agro-chemistry
- 2) Presently engaged in research work or education in the field of agronomy or agro-chemistry
- 3) Between twenty five (25) and forty (40) years of age
- 4) A sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

The course deals with the following subjects through lectures, experiments, practices and observations in study tours

- 1) The characteristics of soilless culture and it's world situation
- 2) Systems and structure of soilless culture and solid media science
- 3) Preparation and management of nutrient solution
- 4) Practical crops management in hydroponics
- 5) Nutritional disorders and plant physiology
- 6) Analytical procedure of mineral elements
- 7) Disease and insect pests control in hydroponics

5. FACILITIES AND INSTITUTIONS

- 1) University of Tsukuba
- 2) Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

No. 146

EFFECTIVE UTILIZATION OF TROPICAL AGRICULTURE
AND FORESTRY RESOURCES 熱帯農林資源の有効利用

1. PERIOD

July 18, 1991 to March 23, 1992 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) be university graduates with more than three (3) years laboratory research experience and be presently engaged in research works
- 2) be under forty (40) years of age
- 3) Have a sufficient command of both spoken and written English
- 4) be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as a disqualifying condition for the participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Joint programme
 - Lecture
 - Observation
 - Computer application (for agriculture)
- 2) Specialized programme
 - a) Technical applications to the study of crop production
 - Studies on crop cultivation and crop physiology including photosynthesis
 - Studies on farm management
 - b) Fundamental techniques for afforestation and forest survey of mangroves
 - Studies on stand structure and ecology
 - Studies on remote sensing techniques
 - Studies on preventional functions
 - Studies on tree population genetics
 - Studies on forest pathology
 - Studies on forest policy and economics
- 3) Field trip

5. FACILITIES AND INSTITUTIONS

- 1) College of Agriculture, University of the Ryukyus
- 2) Okinawa International Centre (OIC), JICA

6. REMARKS

1. PERIOD

August 19, 1991 to November 17, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty one (21)

3. QUALIFICATIONS

- 1) be university graduates or have the equivalent academic background
- 2) be presently engaged in the works of irrigation and drainage or rural area improvement, and have about 10 years of occupational experience in this field
- 3) have a sufficient command of spoken and written English
- 4) be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

Productivity increase in agriculture and elimination of poverty in rural area contribute to prevent the expansion of agriculture to the marginal lands and environmentally sensitive areas, which will have positive impact on the prevention of desertification or deforestation of tropical forest and on the preservation of earth environment.

The course is to provide the knowledge and know-how on the appropriate irrigation and drainage technology, the conservation and rehabilitation of agricultural lands, the effective use of local energy, etc. for environmental planning and management.

5. FACILITIES AND INSTITUTIONS

- 1) Japanese Institute of Irrigation and Drainage (JIID)
- 2) Agricultural Structure Improvement Bureau, Ministry of Agriculture, Forestry and Fisheries (MAFF)

6. REMARKS

1. PERIOD

September 5, 1991 to November 30, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) Middle management class government officers who are in charge of administration of market operation in urban areas and control of distribution of fresh fruits and vegetables,
- 2) Occupational experience of at least 2 years,
- 3) University graduates or the equivalent,
- 4) Good health both physically and mentally,
- 5) Under 35 years of age,
- 6) Good working knowledge of English.

4. DESCRIPTION OF TRAINING

Lectures, observations, practical training

- Administration of wholesale markets,
- Distribution system of wholesale markets
- Legal system related to wholesale markets
- Facilities in wholesale markets
- Plan and design of wholesale markets
- Production and shipping of fresh fruits and vegetables
- Promotive policies and measures for agriculture and distribution of fresh fruits and vegetables
- Measures for rationalization of distribution system
- Roles played by retail markets and their present situation
- Modernization and rationalization of retail markets
- Consumer oriented administration
- Theory and reality of pricing of fresh fruits and vegetables
- International distribution of fresh fruits and vegetables
- Case studies and discussions

5. FACILITIES AND INSTITUTIONS

- 1) Osaka International House Foundation
- 2) Central Wholesale Market of Osaka City
- 3) Economic Bureau of Osaka City Government

6. REMARKS

IRRIGATION AND DRAINAGE II 灌溉排水 II

1. PERIOD

February 10, 1992 to November 20, 1992 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 25 to 35 years of age
- 5) A sufficient command of spoken & written English

4. DESCRIPTION OF TRAINING

This course imparts the comprehensive technology of irrigation and drainage in order to improve the water management in terminals.

- 1) Lectures and practice
 - *Irrigation and drainage (irrigation planning, drainage planning, water resources development, etc.)*
 - *Structure and construction (dams, headworks, pipelines, etc.)*
 - *Practice (surveying, water requirement in depth, etc.)*
 - *Experiments (soil, concrete, hydraulics, etc.)*
- 2) Observation tours
 - *Irrigation and drainage projects*
 - *Reclamation and consolidation projects*
 - *Dam construction projects*
 - *National research institutes*

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

1. PERIOD

May 27, 1991 to August 11, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Sixteen (16)

3. QUALIFICATIONS

- 1) Be presently engaged in the said field
- 2) University graduates or the equivalent academic background with occupational experience of more than 7 years
- 3) Under 45 years of age
- 4) Good working knowledge of English
- 5) Be in good health

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Outline of Japan's agriculture and land improvement project
 - Land reclamation and consolidation
 - Irrigation and Drainage System
 - Design criteria
 - Operation and maintenance facilities and water management
- 2) Observation tours
 - Present situation of agricultural land utilization and water resources development in Japan
- 3) Country Report session

5. FACILITIES AND INSTITUTIONS

- 1) The Japanese Institute of Irrigation & Drainage
- 2) Agricultural Structure Improvement Bureau, Ministry of Agriculture, Forestry and Fisheries

6. REMARKS

No. 151

IRRIGATION WATER MANAGEMENT 水管理

1. PERIOD

May 6, 1991 to October 30, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 5 years
- 4) Between 25 and 35 years of age
- 5) A sufficient command of spoken & written English

4. DESCRIPTION OF TRAINING

This course transfers the intensive technology of irrigation water management by the use of mathematical model simulation.

- 1) Lectures and practice
 - Design (canal, dams, headworks, pipeline, etc.)
 - Related subjects (hydraulic simulation, case study using unsteady flow, economic evaluation, etc.)
 - Practice (computer programming, water requirement in depth, etc.)
 - Experiment (hydraulic model)
- 2) Observation tours
 - National research institutes
 - Canal works
 - Water management system

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

1. PERIOD

August 13, 1991 to November 26, 1991.

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be university graduates or have an equivalent academic background,
- 2) be presently engaged in either research or educational activity and have more than 2 years of occupational experience in this field,
- 3) be not more than forty years old,
- 4) have a sufficient command of spoken and written English,
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Lectures, Experiment and Practical training
 - Natural environments of arid areas
 - Runoff analysis
 - River and groundwater engineering
 - Facilities of water storage and water supply
 - Agricultural practice of arid areas
 - Irrigation and drainage
 - Water management
 - Water resources planning
- 2) Study Visit
 - North Okinawa water resources development project
 - Minafuku underground dam (Okinawa prefecture)
 - Matano dam (Tottori prefecture)
 - Kiso river basin irrigation and drainage project (Aichi prefecture)
 - The Hojo sand dune area farm (Tottori prefecture)

5. FACILITIES AND INSTITUTIONS

Tottori University

6. REMARKS

No. 153

FARM MECHANIZATION II 農業機械化 II

1. PERIOD

March 2, 1992 to November 20, 1992 (9 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 27 and 40 years of age
- 5) A sufficient command of spoken & written English

4. DESCRIPTION OF TRAINING

- 1) Lecture and practice
 - Farm mechanization: Effective introduction of farm machinery (inspection and selection), its utilization and systematic mechanized farming mainly connected with rice production
 - The related subjects to mechanization: Rice cultivation, land consolidation, administration of mechanization and co-operative of farm machinery in Japan
 - Experiment on farm mechanization
- 2) Observation tours
 - Experimental and research institutes, farm machinery manufacturers and other related organs

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

No. 154

FARM MACHINERY DESIGN 農業機械設計

1. PERIOD

February 10, 1992 to October 23, 1992 (9 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates from faculty of agricultural engineering or mechanical engineering
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 25 and 42 years of age
- 5) A sufficient command of spoken & written English

4. DESCRIPTION OF TRAINING

- 1) Lecture and practice
 - Design engineering: Machine design technology such as drawing & design of machine elements, its parts and simple farm machinery
 - Trial-make of simple farm machinery and its performance test
 - Materials: Physical properties of metal strength of materials, and heat treatment of metal. Physical property of plant and soils
 - Technology in common
- 2) Observation
 - Experimental and research institutes and other related organs

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

1. PERIOD

May 16, 1991 to December 7, 1991 (7 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Agricultural engineers in supervising posts
- 3) At least three (3) years of experience in the field of agricultural machinery management and/or instruction
- 4) be under forty (40) years of age
- 5) good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Principles and structures of agricultural machinery and components
 - Agricultural machinery management
 - Fundamentals of mechanical engineering
 - Reference subjects
- 2) Practice
 - Measurement
 - Disassembly, reassembly and maintenance
 - Field operation
 - Welding
- 3) Agricultural machinery management
 - Microcomputers
 - LP, DP and simulation techniques
 - Cost analysis methods
 - Management schemes of agricultural machinery
- 4) Observations
- 5) Report presentation and discussion
- 6) Examination and evaluation

5. FACILITIES AND INSTITUTIONS

- 1) International Cooperation Service Center (ICSC)
- 2) Kyoto University
- 3) Member plants of Japan Farm Machinery Manufacturers Association and other plants

6. REMARKS

1. PERIOD

March 2, 1992 to May 29, 1992 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates from faculty of agricultural engineering or mechanical engineering
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 25 and 50 years of age
- 5) A sufficient command of spoken & written English

4. DESCRIPTION OF TRAINING

- 1) Lecture and practice
 - Testing methods of agricultural machinery
 - The methods of data processing and evaluation
 - Testing and measuring facilities
 - Technology in common
- 2) Observation
 - Manufacturers
 - Experimental and research institutes and other related organs

5. FACILITIES AND INSTITUTIONS

- 1) Bio-oriented Technology Research Advancement Institution (BRAIN)
- 2) Tsukuba International Agricultural Training Centre, IICA

6. REMARKS

No. 157

POST-HARVEST RICE PROCESSING 米のポストハーベスト研修

1. PERIOD

August 27, 1991 to November 26, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fourteen (14)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Senior technical administrators in the government or the public organizations engaging in planning and promoting improvements of all post-harvesting process of rice such as paddy drying, storage, rice milling, etc.
- 3) Under 45 years of age
- 4) Good working knowledge of English
- 5) Not be instructor or professor of college and university or researcher

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Rice and food situation in Japan and in the world
 - Government policies and control system on rice and food in Japan
 - Pre-harvest methods and machinery
 - Drying and storage of rice and the role of agricultural co-operatives
 - Milling machines and rice mill planning and management
 - Quality of rice and its control
 - Rice and by-product utilizations
- 2) Observation tours of machine making factory

5. FACILITIES AND INSTITUTIONS

- 1) Japan Grain Inspection Association
- 2) Ministry of Agriculture, Forestry and Fisheries

6. REMARKS

ANIMAL HUSBANDRY

No. 158

POULTRY PRODUCTION AND BREEDING TECHNOLOGY

鶏育種・生産技術

1. PERIOD

May 9, 1991 to September 21, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience
- 2) Occupational experience of more than 2 years in the field of poultry raising activities
- 3) Between 26 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Feeding management for layers and broilers
 - Breeding
 - Hatching and brooding
 - Feed and composition
 - Artificial insemination
 - Poultry farm management
 - Poultry house and equipment
 - Hygiene
 - Inspection of quality and egg processing
 - Extension and education
 - Private poultry industry in Japan
 - Statistics

5. FACILITIES AND INSTITUTIONS

- 1) Okazaki National Poultry Breeding Station, Ministry of Agriculture, Forestry and Fisheries (MAFF)
- 2) Poultry Research Institute, Aichi-ken Agricultural Research Centre

6. REMARKS

BREEDING AND ARTIFICIAL INSEMINATION IN CATTLE

牛育種・人工授精

1. PERIOD

May 9, 1991 to July 21, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) be university graduates or have the equivalent academic background and practical experiences
- 2) be presently engaged in livestock administration, holding veterinary licenses or artificial inseminator's licenses
- 3) have a good command of English both spoken and written
- 4) be under forty (40) years of age in principle
- 5) be in good health, both physically and mentally (pregnancy is regarded as a disqualifying condition for participation in the course)
- 6) can be engaged in systematic development and promotion after absorbed from this training.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - General Aspects of Livestock Industries
 - Cattle Breeding
 - Artificial Insemination
 - Extension of Artificial Insemination
 - Deep Frozen Semen
 - Reproductive Disorder
 - Cattle Management
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

The National Livestock Breeding Center
Ministry of Agriculture, Forestry and Fisheries

6. REMARKS

EMBRYO TRANSFER FOR CATTLE 受精卵移植技術

1. PERIOD

June 25, 1991 to October 5, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Be university graduates or have the equivalent academic background;
- 2) Hold veterinarian's license or artificial inseminator's license and have sufficient knowledge about artificial insemination by using rect-vaginal method and more than three years experience in practice;
- 3) Have a good command of English both spoken and written;
- 4) Be under forty (40) years of age in principle;

4. DESCRIPTION OF TRAINING

The purpose of the course is to provide the latest ET techniques in Japan for livestock breeding personnel in countries faced with the necessity of it, and ultimately to contribute to the progress of animal industry by the application and improvement of the techniques under their respective countries' condition.

The course provides basic theory and practical use of ET as well as its administration.

5. FACILITIES AND INSTITUTIONS

National Livestock Breeding Centre, Ministry of Agriculture, Forestry and Fisheries.

6. REMARKS

No. 161

TWINNING AND INVITRO FERTILIZATION TECHNOLOGY FOR CATTLE

双子生産・体外受精技術

1. PERIOD

September 9, 1991 to December 20, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Be university graduates or have the equivalent academic background.
- 2) Hold a veterinarian's license or artificial inseminator's license, and have sufficient knowledge and practical experience.
- 3) Be staff members of institutes or universities that participate in the improvement of animal reproduction.
- 4) Have a good command of both spoken and written English.

4. DESCRIPTION OF TRAINING

The purpose of this course is to provide the latest techniques of twinning and IVF (for cattle) in Japan to technical specialists in animal reproduction from the countries that need such technology and to contribute to the progress of livestock industries. The participants are expected to apply and improve upon the techniques introduced in the course so as to adapt them to the situation in their respective countries.

5. FACILITIES AND INSTITUTIONS

The National Livestock Breeding Center.
Ministry of Agriculture, Forestry and Fisheries.

6. REMARKS

1. PERIOD

August 26, 1991 to November 19, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Be engaged in fields related to animal husbandry
- 3) Have a sufficient command of spoken and written English
- 4) Under 40 years of age

4. DESCRIPTION OF TRAINING

The purposes of the course are to train dairy specialists and technicians to be leaders in their fields by providing basic, practical knowledge about the techniques essential to strengthening dairy farming such as livestock health inspection techniques, sanitary methods and inspection techniques for maintaining meat and milk quality, etc..

5. FACILITIES AND INSTITUTIONS

Obihiro University of Agriculture and Veterinary Medicine

6. REMARKS

Participants are asked to select "subcourse 1 or 2."

1. Quality tests and Sanitary inspection techniques in Dairy and Meat Products
2. Animal Husbandry Techniques

FORESTRY

No. 163

FORESTRY AND FOREST PRODUCTS RESEARCH 林業林産研究

1. PERIOD

August 26, 1991 to December 22, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University or college graduates or equivalent
- 2) Occupational experience of more than 5 years
- 3) Qualified in their respective fields
- 4) Under 40 years of age
- 5) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

Lectures and practical training

- 1) Lectures:
Forestry and Forest Products in Japan, Present Situation and Level of Forestry Research in Japan
- 2) Individual Studies:
Individual studies for 56 days will be given during the training period at one of the following divisions.
 - Wood Chemistry Division
 - Wood Technology Division
 - Dio-Resources Technology Division

5. FACILITIES AND INSTITUTIONS

- 1) Forestry and Forest Products Research Institute, Ministry of Agriculture, Forestry and Fisheries
- 2) Tsukuba International Centre, JICA

6. REMARKS

Training Courses on Forestry and on Forest Products are provided every other year. In 1991, training course on forest products will be given.

1. PERIOD

July 9, 1991 to October 18, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

Applicants should:

- 1) be forestry university and/or college graduates, equivalents with occupational experience of more than five years in the field of forestry administration,
- 2) be presently engaged in planning work in the governmental forestry organizations,
- 3) not be researchers of public organizations or instructors or professors of colleges and/or universities,
- 4) have a sufficient command of spoken and written English,
- 5) be under forty years of age,
- 6) be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Outline of forestry and wood industry in Japan
- 2) Forestry and forest products administration in Japan
- 3) Forestry technique
- 4) Silvicultural technique in the Tropics
- 5) Observation tours (Tokyo, Kyushu, Okinawa and Tsukuba)

5. FACILITIES AND INSTITUTIONS

Forestry Agency, Ministry of Agriculture, Forestry and Fisheries

6. REMARKS

This course is not suitable for person presently being engaged in either research or educational activity.

FOREST SOILS 森林土壤

1. PERIOD

August 22, 1991 to December 8, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates with occupational experience more than 5 years in the field of forest soil research
- 2) Presently serving at forestry research organizations or universities
- 3) Under forty (40) years of age
- 4) Having a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Forest Soil Science
 - General Description of Forest Soils
 - Formulation, Classification and Distribution of Forest Soils
 - Vegetation, Productivity and Water Conservation with Forest Soils
 - Soils and Fertilizers for Forest Nursery
 - Forest Soils in Okinawa
- 2) Investigation into Forest Soils
 - Methods of Forest Soil Investigations (sampling and analysis)
 - Soil Mapping and Utilization on Forest Maps
 - Field Research and Investigations
- 3) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Japan Forest Technical Association
- 2) Forestry Agency, Ministry of Agriculture, Forestry and Fisheries
- 3) College of Agriculture, University of the Ryukyus
- 4) Okinawa International Centre (OIC), JICA

6. REMARKS

1. PERIOD

August 12, 1991 to November 17, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) be senior technical staff in charge of forest management in the governmental organization and have more than 5 years of experience.
- 2) be university graduate or have the equivalent academic background.
- 3) have a sufficient command of spoken and written English
- 4) be not more than forty-five (45) years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures' discussion and practice
 - Outline of Japanese forest and forestry
 - Forest management and planning in Japan
 - Inventory survey method of forest
 - Forest policy in rural development
 - Management of tropical natural forest resources
- 2) Field observation and study tour
- 3) Forum

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) National Forestry Training Institute, Ministry of Agriculture, Forestry and Fisheries.

6. REMARKS

There will be an intensive Japanese language course, conducted prior to the technical training (50 hours).

FISHERIES

No. 167

FISHERY COOPERATIVES 漁業協同組合

1. PERIOD

July 1, 1991 to December 16, 1991 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduate or equivalent
- 2) Fishery cooperative experience of more than 3 years
- 3) Under 40 years of age
- 4) To have a sufficient command of English language

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Outline of fishery cooperatives, fish marketing, fisheries finance, fishery cooperative management, accounting of fishery cooperatives
 - Fisheries legislation, Fisheries Cooperatives Law
 - Fisheries administration, Fisheries economics
 - Resources management
 - Other essential subjects related to fishing industry
- 2) Observation tours
 - Fisheries cooperatives association
 - Fishing ports
 - Fishing markets
 - Fish processor plant of fishing companies
 - Fishermen's houses
 - Aquaculture farms, and some research institutes
 - Consumer cooperative

5. FACILITIES AND INSTITUTIONS

Kanagawa International Fisheries Training Centre, JICA

6. REMARKS

It is desirable to hold TOEFL (Test of English as foreign language) score more than 500 points.

1. PERIOD

January 7, 1992 to March 21, 1992 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) Be presently engaged study of fishing gear and methods by research work, education, fishing gear fabrication or actual fisheries operation,
- 2) University graduate or equivalent,
- 3) Under 35 years of age,
- 4) To have a sufficient command of English language

4. DESCRIPTION OF TRAINING

- 1) Lecture, Experiment and Practice
 - Fishing Gear Design (Trawl and Gillnet)
 - Fishing Gear Construction (Trawl and Gillnet)
 - Fishing Gear Materials
 - Fish Behaviour to Fishing Gear
 - Dynamics of Fishing Gear (Trawl)
 - Fishing Method (Trawl and Gillnet)
 - General Knowledge on coastal fishing gear and methods development (Fishing boat, Infrastructure, Fishery management, Fishery resources)
- 2) Observation tours
 - Manufacturing plant for Fishing Gear, Vessel, Outboard motor, and Diesel engine
 - Fishing port
 - Fish market

5. FACILITIES AND INSTITUTIONS

- 1) Kanagawa International Fisheries Training Centre, JICA
- 2) Tokyo University of Fisheries
Yanmar Diesel Engine Co., Ltd.
Yamaha Motor Co., Ltd.
Nichimo Co., Ltd.

6. REMARKS

1. PERIOD

April 9, 1991 to December 16, 1991 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Senior high school graduates or equivalent
- 2) Fishery experience of more than 3 years
- 3) Under 35 years of age
- 4) Sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practice
 - Fishing gear and methods of coastal fisheries in Japan
 - On board fishing training
 - Fishing practice by commercial fishing boats
 - Net handling practice
 - Model net construction
 - Engine handling practice
- 2) Observation tours
 - Fishing ports
 - Fish markets
 - Fishing operations by commercial fishing boats
 - Fish processing plants
 - Fishing Net & Rope Mfg., Plants
 - Fishing Machinery Mfg., Plants
 - Fishery Cooperatives

5. FACILITIES AND INSTITUTIONS

Kanagawa International Fisheries Training Centre, JICA

6. REMARKS

GENERAL AQUACULTURE 養殖一般

1. PERIOD

January 7, 1992 to June 23, 1992 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) To be a university graduate or its equivalent
- 2) To have a previous experience in aquaculture or fisheries work over two (2) years
- 3) To be not more than thirty five (35) years of age
- 4) To have a sufficient command of English
- 5) To have some assurance of being employed in aquaculture activities on the completion of training

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Introduction to fisheries in general
 - Aquaculture in general
 - Biological and chemical principles underlying the practice of aquaculture
 - Aquacultural engineering
- 2) Practice
 - Artificial insemination and seed production (Larval rearing)
 - Pituitary extraction and hormone injection
 - Living food organisms culture
 - Fish anatomy and histology
 - Feed analysis and determination of digestibility
 - Water quality analysis
- 3) Observation Tours
 - National and regional fisheries research laboratories
 - Prefectural fisheries experimental stations
 - Sea farming center
 - University of fisheries
 - Various types of private fish farms and other relevant organization

5. FACILITIES AND INSTITUTIONS

Kanagawa International Fisheries Training Centre, JICA

6. REMARKS

The purpose of the training course is to impart general information or outline of aquaculture, and general principles of aquaculture techniques to those who are employed in aquaculture activities. Therefore, the course does not involve any specific species of organisms and techniques.

No. 171

PRAWN PROPAGATION TECHNIQUE エビ増養殖技術

1. PERIOD

February 17, 1992 to August 3, 1992 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Be presently engaged either in practical production or research and have more than one year of occupational experience in this field,
- 2) Be above junior college graduates or have an equivalent academic background,
- 3) Have a sufficient command of spoken and written English,
- 4) Be not more than thirty-five years of age,
- 5) Be in good health, both physically and mentally, be undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Biology of *Penaeus japonicus*
- 2) Seedling production of *Penaeus japonicus*
- 3) Technique of *Penaeus japonicus* culture
- 4) *Sickness control and feeds of Penaeus japonicus*
- 5) Freshness preservation and marketing system of prawns
- 6) *Marine environment and management of water quality in ponds*
- 7) Seedling production of fishes and shellfishes
- 8) *Aqua propagation in general*

5. FACILITIES AND INSTITUTIONS

Yamaguchi Prefectural Naikai Sea Farming Center

6. REMARKS

1. PERIOD

July 29, 1991 to December 9, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Be university graduates or have the equivalent academic background, and be experienced in business over 5 years,
- 2) Be presently engaged in either research or educational activity in fisheries,
- 3) Be not more than forty years old,
- 4) Have a sufficient command of spoken and written English,
- 5) Be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Management of Water Quality
 - Fisheries Hydrography
 - Marine Botany and Planktology and Benthos
 - Techniques in Preparing Seaweed Beds
 - Ichthyology
 - Seed Production for Shellfish, Shrimp and Marine Fish
 - Fisheries Engineering and Ecology on Artificial Reefs
 - Planning of Marine Ranch Systems
- 2) Observation tours
 - Introduction of Fisheries in Japan
(Kanagawa International Fisheries Training Centre)
 - Seed Production Institute
(Japan Farming Fisheries Center, Yashima in Takamatsu)
 - Marine Fish Culture Farm
(Wakayama Prefectural Experimental Station)
 - Marine Ranching Field and Oyster Culture Ground
(Ohita and Hiroshima Prefectural Experimental Station)

5. FACILITIES AND INSTITUTIONS

Usa Marine Biological Institute, Kochi University

6. REMARKS

MARINE FISH CULTURE 海面養殖

1. PERIOD

February 3, 1992 to July 17, 1992 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) be those who have three years' experience or more on teaching, research and education in the field of marine fish culture, and be expected to be working on their return in this line.
- 2) have a sufficient command of spoken and written English.
- 3) be university graduates or have the equivalent academic background
- 4) be not more than forty years old in principle
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Outline of Marine Fish Culture
 - Fish Physiology
 - Fish Nutrition and Diets
 - Seed Production
 - Cultural Ground Management
 - Fish Farming Technology
 - Fish Pathology
 - Engineering for Fish Culture
 - Marketing and Aquacultural Management
 - Live Fish Transportation
- 2) Practice
 - Culture of Living Foods
 - Seed Production of Sea Bream
 - Culture of Sea Bream and Yellow Tail
 - Preparation of Foods
 - Water Analysis
 - Fish Pathological Examination
- 3) Study Trip
 - Fish Culture Farm
 - Seed Production Center
 - Fish Market

5. FACILITIES AND INSTITUTIONS

- 1) Propulsion Conference of Nagasaki International Fisheries Training Affairs, Nagasaki City, Nagasaki Prefecture.
- 2) Fishery Laboratory of Nagasaki Prefectural Fishery Centre
- 3) Nagasaki Municipal Fishery Centre.

6. REMARKS

1. PERIOD

March 9, 1992 to June 23, 1992 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Be university graduates or have the equivalent academic background
- 2) Be presently engaged in either research or educational activity and have more than 3 years of occupational experience in this field.
- 3) Be not more than 40 years old
- 4) Have a sufficient command of spoken and written English
- 5) Be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Lectures (L), Experiment and Practical Training (P)
 - Principles of Aquaculture (L)
 - Fish Nutrition (L)
 - Water Quality Management (L)
 - Fish Physiology (L,P)
 - Pathogenic Microbiology in Fish (P)
 - Marine Fish (L)
 - Bacteriology (L)
 - Fish Pathology (L)
 - Prevention of Epizootics in Fish (L,P)
 - Breeding Control of Freshwater Fish (P)
 - Breeding Control of Marine Fish (P)
 - Others
- 2) Study trip
 - Marine Fish Culture Farm
 - Freshwater Fish Culture Farm
 - Seeding Production Center
 - Fish Epizootic Prevention Institution

5. FACILITIES AND INSTITUTIONS

Simonoseki University of Fisheries

6. REMARKS

No. 175

HULL AND ENGINE MAINTENANCE OF SMALL FISHING BOAT

小型漁船の船体・機関保守

1. PERIOD

January 7, 1992 to June 23, 1992 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) Senior high school graduates or equivalent
- 2) Fishery boat or engine experience of more than 3 years
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practice
 - Basic information about fisheries in Japan
 - Hull maintenance
 - Diesel engine and outboard engine
 - Marine auxiliaries
 - Knowledge and handling of FRP
- 2) Observation tours
 - Shipyards
 - Fishing ports
 - Marine engine factories
 - Marine engine operation by commercial fishing boats

5. FACILITIES AND INSTITUTIONS

Kanagawa International Fisheries Training Centre, JICA

6. REMARKS

FISH PROCESSING (WITH MARKETING AND MANAGEMENT)

水産加工流通経営

1. PERIOD

July 15, 1991 to November 22, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

Applicants should:

- 1) be university graduates or have the equivalent academic background,
- 2) have more than three (3) years experience on guidance, research or educational activities in the field of fish processing and be expected to be working on their return in this field,
- 3) be not more than 40 years old
- 4) have a sufficient command of spoken and written English,
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 1) Lectures <ul style="list-style-type: none"> - Introduction to Fishery Economics - Theory of Fishery Products Distribution - Theory of Fishery Products Consumption - Theory of Fishery Industry Cooperative Association - Theory of Fishery Processing - Fishery Chemistry - Food Sanitary - Refrigeration - Theory of Fishery Processing Economy - Theory of Packing Materials - Theory of Fishery Processing Machines and Tools - Introduction to Food Inspection - Study for Manufacturing Canned Products - Theory of Fishery Processing Facilities | <ol style="list-style-type: none"> 2) Practical Trainings <ul style="list-style-type: none"> - Refrigeration - Fish Processing - Fishery Chemistry - Food Sanitary - Manufacturing Canned Products - Know-how for Cooking Fish and Shellfishes 3) Observation Tours |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

5. FACILITIES AND INSTITUTIONS

- 1) Propulsion Conference of Nagasaki International Fisheries Training Center
- 2) Nagasaki Prefecture

6. REMARKS

MARINE FOOD PROCESSING TECHNOLOGY 水産食品加工

1. PERIOD

October 2, 1991 to March 22, 1992 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Under 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Present situation of marine resources, Fishery industry and marine processing in Japan, Fish culture, Environmental engineering
 - Japanese eating habits, Food supply in Japan, Food self-supply through technical advancement, Food packaging and storage Food distribution and its problems, Law concerned with food, Agricultural products, Livestock products, Marine products, etc.
 - In-plant training (Meat products, Frozen food, Marine products operation and application of analytical instruments, Analysis of food)
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Hyogo International Centre, JICA
- 2) Public Research Institutions
- 3) Food processing Factories (Food Manufacturing Plants)

6. REMARKS

MINING AND MINERALS

1. PERIOD

May 13, 1991 to December 16, 1991 (7.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Geophysicists, geologists or engineers presently engaged in geoscience
- 3) Occupational experience of more than 3 years
- 4) Not more than thirty five (35) years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Geology (marine geology, petroleum geology, mineral deposits, etc.)
 - Geophysics (Seismic, gravitational, magnetic, electric and logging methods, etc.)
 - Applied mathematics, computer use
 - Laboratory and field work
 - Petroleum exploration
 - Remote sensing, etc.
- 2) Study Trip and Field Work
 - Onboard training
 - Study trip to related facilities

5. FACILITIES AND INSTITUTIONS

- 1) Geological Survey of Japan, Ministry of International Trade and Industry
- 2) Tsukuba International Centre, JICA

6. REMARKS

No. 179

COAL MINE SAFETY 石炭鉱山保安

1. PERIOD

January 27, 1992 to April 25, 1992 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalent who have basic knowledge of mine safety with occupational experience of more than 3 years
- 2) Under 35 years of age in principle
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Outline of Mining in Japan
 - Administration and Mine Safety Law
 - Approval Test Methods of Mine Appliances
 - Rock Mechanics
 - Ventilation
 - Gas, Coal and Dust Explosion
 - Mine Fire
 - Explosion Proof
 - Dust Measurement
 - Explosives and Blasting etc.
- 2) Individual training
- 3) Observations

5. FACILITIES AND INSTITUTIONS

- 1) National Research Institute for Pollution and Resources, Ministry of International Trade and Industry
- 2) Tsukuba International Centre, JICA

6. REMARKS

MINERAL PROCESSING AND METALLURGY 選鉱製鉄

1. PERIOD

August 8, 1991 to August 12, 1992 (12 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Engineers or researchers who have graduated from universities, majoring in mining and metallurgy programmes or similar subjects or those who have an equivalent academic background, with more than three years of occupational experience in the related field.
- 2) Between twenty-five (25) and thirty-five (35) years of age.
- 3) Presently engaged in the research work at universities, vocational institutes, research and development divisions in industries.
- 4) A sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

I) Subjects.

- 1) **Applied Mineralogy**
Physical Chemistry of Minerals, Mineral Engineering, Resource and Environment Management.
- 2) **Mineral Processing**
Crushing and Grinding of Ore, Particulate Technology, Physical Chemistry of Flotation
- 3) **Ferrous Extractive Metallurgy**
Pretreatment of Ore, Ironmaking, Steelmaking, Solidification
- 4) **Non-ferrous Extractive Metallurgy**
Pyrometallurgy, Hydrometallurgy, Electrometallurgy, Environmental Chemistry
- 5) **Process Analysis and Simulation of Metallurgical Process**
Transport Phenomena, Process Simulation, Optimum Design of Processes
- 6) **Materials Science for Metallurgist**
Introduction to Materials Science, Ceramics and Metal Processing.
- 7) **Selected Topics in Mineral Processing and Metallurgy**
Energy Resources, Data Bank System, System Engineering, Seminar.

II) Methodology

- 1) Group Study with Lectures
 - a) *Physical Chemistry of Minerals and Mineral Processing**
 - b) *Fundamentals in Metallurgical Thermodynamics**
 - c) *Fundamentals in Metallurgical Kinetics**
 - d) *Applied Mineralogy and Mineral Processing*
 - e) *Ferrous Extractive Metallurgy*
 - f) *Non-Ferrous Extractive Metallurgy*
 - g) *Transport Phenomena and Process Analysis*
 - h) *Japanese Language and Culture**
 - i) *Advanced course in Mineral Processing and Metallurgy (optional programme)*
- 2) Group Study with Lectures and Practice
Instrumental Analysis (Principle and Experiments)
 - X-ray Diffraction*
 - X-ray Fluorescent Analysis*
 - Atomic Absorption Spectroscopy*
 - Electron Probe Microanalysis*
 - Calorimetry (DSC, DTA) (on demand)
 - Materials Testing (on demand)
 - Computer Training (on demand)
 - Chemical Analysis (on demand)
 - Laboratory Automation (on demand)
- 3) **Independent Study**
Participants are expected to have more professional experiences in respective research programmes under supervision of the professors of SENKEN.
*: All participants may be suggested to have the credit of this subject.
- 4) Observation tours

5. FACILITIES AND INSTITUTIONS

Research Institute of Mineral Dressing and Metallurgy (SENKEN), Tohoku University

6. REMARKS

Japanese language lesson is also offered in this course.

1. PERIOD

February 27, 1992 to June 25, 1992 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) University or College graduates or equivalent with basic knowledge of mineral mining or smelting
- 2) Qualified in their respective fields with more than five (5) years of practical experience
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Technology, policy and administration of mining industry and smelting in Japan
- 2) Observation tours
 - Visits to:
 - Mines and Smelters
 - Manufactures of Related Equipments
 - National Research Institute for Pollution and Resources
 - Geological Survey of Japan
 - Akita University
 - Government Industrial Research Institute, Tohoku

5. FACILITIES AND INSTITUTIONS

International Institute for Mining Technology (Minetec)

6. REMARKS

- 1) Coal mining industry will not be covered in this course
- 2) The training program has following three groups,
 - mining geologist,
 - mining engineers,
 - milling & smelting engineers

1. PERIOD

March 4, 1992 to June 29, 1992 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University or collage graduates, hopefully with M. A. degree
- 2) Occupational experience in research job of more than 3 years
- 3) Qualified in their respective fields
- 4) Under 35 years old of age
- 5) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

- 1) Lectures:
Introductory lectures in the separation and refining techniques for one week, then the participants are allocated to the individual fields listed below for 3.5 months.
- 2) Individual Studies:
 - a) Mineral Processing Group
 - Mineral Processing
 - Mineral identification of ores
 - Separation test
 - Simulating for flotation
 - Determination of floatation rate constants
 - Simulation for batch flotation
 - Simulation for continuous flotation circuit
 - Simulation of process control for flotation circuit
 - b) Hydrometallurgy Group
 - Solvent extraction of rare earth elements
 - Determination of distribution coefficients for rare earth elements
 - Separation of rare earth elements (Sc, Y, and lanthanoids)
 - Ion-exchange separation of gallium or indium using metal-selective polymer resin
 - Batchwise experiments to determine their adsorption capacities and distribution coefficients
 - Column separation experiments for separation
 - Ion-exchange separation of rare earth metals
 - Batchwise experiments to determine adsorption capacities and distribution coefficients
 - Separation of platinum group metals by ion-pair formation
 - Chemical and instrumental analysis of rare metals are also covered in the training course, i.e.
 - i) Dissolution of mineral samples
 - ii) Gravimetric and volumetric analysis
 - iii) Spectroscopic analysis
 - c) Heat Extraction and Utilization Group
 - Electrochemical cell to get electric energy from thermal one
 - Experimental work on heat extraction from thermal resources in laboratory scale
 - Numerical analysis on convective fluid flow in geothermal reservoir and/or in electrochemical cell

5. FACILITIES AND INSTITUTIONS

Government Industrial Research Institute, Tohoku

6. REMARKS

INDUSTRY

No. 183

SMALL INDUSTRY DEVELOPMENT SEMINAR II 中小工業開発セミナーII

1. PERIOD

July 4, 1991 to August 4, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirteen (13)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Senior administrative officials in charge of implementation and/or planning of small industry development
- 3) Occupation experience of more than 5 years
- 4) More than 30 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and discussions
 - a) General Environment for Small Industry
 - Economic Situation
 - Political Situation
 - Social & Cultural Conditions
 - Development Policies
 - b) Japanese Case Study
 - Financing
 - Tax and Credit
 - Management
 - Technology
 - Human Resources
 - c) International Comparative Study
 - Ancillarization
 - Rural Industrialization
 - Export-Oriented Industrialization
 - Institutional Set-ups
(Industrial Estate, Cooperative)
 - d) Policy Making Workshop
- 2) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Aichi Industrial Research Association
- 2) Special Faculty Committee for Small Industry Development Seminar

6. REMARKS

Senior class seminar

**IMPLEMENTATION OF TOTAL QUALITY CONTROL AND
STANDARDIZATION ACTIVITIES II** T Q C · 標準化活動実践 II

1. PERIOD

June 27, 1991 to September 8, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirteen (13)

3. QUALIFICATIONS

- 1) be working for promotion of standardization and/or quality control with experience of more than three (3) years in government office, public corporation, public or private institute, or private company.
- 2) be under forty (40) years of age,
- 3) be graduates of college or university, or have an equivalent educational background,
- 4) continue working in the above mentioned field after returning to their home countries,

4. DESCRIPTION OF TRAINING

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 1) Lectures <ol style="list-style-type: none"> a) Industrial Standardization <ul style="list-style-type: none"> - Industrial Standardization Activities in Japan - Japanese Industrial Standards (JIS) - JIS Marking System - Company Standardization - International Movements on Standardization b) Quality Control (including actual practice) <ul style="list-style-type: none"> - Philosophy of Quality Control - Problem Solution by Statistical Methods - Sophisticated Techniques of Quality Control (Experimental Design Method etc.) - How to Promote TQC - Small Group Activities (QC Circle) - Quality Assurance - Metrology - Others | <ol style="list-style-type: none"> c) Other Relative Subjects <ul style="list-style-type: none"> - Ergonomics and Standardization - 7 Management Tools - Approach to ISO 9000 Series - Sampling Inspection 2) Technical Visits <ul style="list-style-type: none"> - JIS Licenced Factories - Small and Medium Scale Industries - Metrology Institute - Inspection Institutes 3) Observation Tour 4) Country Reports Presentation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

5. FACILITIES AND INSTITUTIONS

- 1) Standards Department, Agency of Industrial Science and Technology, Ministry of International Trade and Industry
- 2) Japanese Standards Association (JSA)
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 185

INDUSTRIAL STANDARDIZATION AND QUALITY CONTROL SEMINAR

工業標準化・品質管理シニアセミナー

1. PERIOD

October 29, 1991 to November 22, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) be working for promotion of industrial standardization and/or quality control in government office, public corporation, public or private institute, or private company,
- 2) be ranked as a senior-class staff (director of department or its equivalent) presently engaged in policy-making of industrial standardization and/or quality control,
- 3) be university graduates or the equivalent,
- 4) be between thirty five (35) and fifty (50) years of age,
- 5) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Country Report Presentation
- 2) Lectures
 - Outline of Industrial Standardization, Quality Control and Certification-Inspection System in Japan
 - Industrial Standardization as one of measures of Industrial Policy
 - National Standardization and International Standardization Activities
 - Promotion of In-Company Standardization
 - Japanese Management System
 - TQC and Promotion of TQC in a Company
 - Some new topics in Japanese Standardization Activities
- 3) Panel Discussion with Japanese QC Leaders
- 4) Visit to Factories and/or Inspection Institute
- 5) Observation Tour

5. FACILITIES AND INSTITUTIONS

- 1) Standards Department, Agency of Industrial Science and Technology, Ministry of International Trade and Industry
- 2) Japanese Standards Association (JSA)

6. REMARKS

1. PERIOD

September 5, 1991 to November 6, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Officials who have experience as:
 - Group A – a general administration officer in the industrial property offices or related organizations,
 - Group B – an examiner for examination of patent, design or trademark applications in a country which does not have the industrial property, system.
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

Lectures

Group A and B

- Brief introduction to Industry Property Systems
- Promotion of Inventive activities and the role of Industrial Property System
- Industrial Property Information Services
- Transfer of technology and licencing
- Consultation and agential activities
- Practical use of Industrial Property System in enterprises
- Outline of the Japanese Patent Law and Utility Model Law, the Japanese Design Law, and the Japanese Trademark Law

Group A. Lectures

- The Present Conditions of Patent Administration
- The Use and Economic Value of Patents
- Industrial Property Management
- Technology Transfer and Licensing
- Protection of Trademarks and Prevention of Unfair Trade

Group B

- 1) Practical training
 - Examination practice (Group and Individual)
- 2) On-the-spot training
 - At Japanese Patent Office (JPO), and Japan Institute of Invention and Innovation (JIII)
- 3) Case studies
 - Actual developmen. of new products, industrial property management in large enterprises and in medium and smaller enterprises
- 4) Observation tour
 - Private Enterprises

5. FACILITIES AND INSTITUTIONS

- 1) Japanese Patent Office (JPO), Ministry of International Trade and Industry
- 2) Japan Institute of Invention and Innovation (JIII)
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

1. PERIOD

June 4, 1991 to June 29, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) be ranked as senior-class officials (Directors of departments or the equivalents) of a competent government department (Industrial Property Office and its supervisory ministry) who are or will be in charge of policy-making in the field of industrial property administration,
- 2) have a sufficient command of spoken and written English,
- 3) be university graduates or the equivalent,
- 4) be between thirty (30) and fifty (50) years of age,

4. DESCRIPTION OF TRAINING

- 1) Orientation
- 2) Brief introduction to Industrial Property System with movies and VTR.
- 3) Visits to Japanese Patent Office (JPO) and Japan Institute of Invention and Innovation (JII)
- 4) Lectures followed by discussions on:
 - The Role of the Industrial Property System
 - Use of Industrial Property by the enterprise sector
 - Consultation and agential activities
 - Industrial Property Information Services
 - Others
- 5) Panel discussion based on the Country Reports
- 6) Visits to enterprises

5. FACILITIES AND INSTITUTIONS

- 1) Japanese Patent Office (JPO), Ministry of International Trade and Industry
- 2) Japan Institute of Invention and Innovation (JII)

6. REMARKS

METROLOGY AND MEASUREMENT STANDARDS 計量標準

1. PERIOD

May 27, 1991 to December 16, 1991 (6.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in measurement or inspection of measuring instruments at governmental, semi-governmental or local metrology services
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and individual studies
 - Essentials of metrology and measurement standards
 - International system of units
 - Regulations related to metrology
 - Standardization related to metrology
 - Export inspection system
 - Fundamental theory of measurement
 - Maintenance of measurement standards
 - Specialized practical training
- 2) Observation tours
 - To related institutions

5. FACILITIES AND INSTITUTIONS

- 1) Japan Measuring Instruments Federation
- 2) National Research Laboratory of Metrology (NRLM)
- 3) Tsukuba International Centre, JICA

6. REMARKS

1. PERIOD

January 13, 1992 to March 12, 1992 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be presently engaged in the work relating to certification, inspection and/or testing,
- 2) be under thirty (30) years of age,
- 3) be graduates of college or university, or have an equivalent educational background,
- 4) continue working in the above mentioned field after returning to their home countries,
- 5) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

1) Lectures

- | | |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Certification | <ul style="list-style-type: none"> - Outline of Certification System - Compulsory Standards & Voluntary Standards - Consumer Product Safety Law - Measurement Control System based on the Measurement Law - Certification system based on Electrical Appliance and Material Control Law - Industrial Standardization Law - JIS & JIS Marking System - Procedure for JIS Marking System - Measures Required by Plants Desiring JIS Authorization - Inspection for Export Goods |
| Inspection | <ul style="list-style-type: none"> - Outline of Inspection - Sampling Inspection |

2) Technical visits

3) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Japanese Standards Association (JSA)
- 2) Standards Department; Agency of Industrial Science and Technology, Ministry of International Trade and Industry (MITI)
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

1. PERIOD

August 26, 1991 to November 8, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Practical experience in design work for more than 5 years
- 2) Under 35 years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Guidance
 - Orientation
 - Presentation of Country Report
- 2) Lecture
 - Design Promotion Policy in Japan
 - Outline and Basic Knowledge on Interior Design
 - Technology
 - Advertising
 - Design Process
 - Marketing
 - Case Study
 - Design Management
- 3) Study Visits
- 4) Practical Training
 - Interior Design Plan and Concept Plan
 - Idea Development
 - Design Work
 - Presentation Technique
 - Finish Work
- 5) Presentation and Evaluation

5. FACILITIES AND INSTITUTIONS

- 1) Japan Industrial Design Promotion Organization (JIDPO)
- 2) Japan Interior Designers' Association (JID)

6. REMARKS

There are three subjects in this course as are mentioned below, and one of these subjects in order will be implemented every fiscal year.

- (i) Industrial design (Industrial Products)
- (ii) Package design (Package of Foods and General Goods)
- (iii) Interior design (Furniture, Space)

No. 191

APPLICATION TECHNOLOGY FOR HIGH TEMPERATURE REFRACTORIES

高温構築材応用技術

1. PERIOD

September 19, 1991 to March 8, 1992 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent academic achievements
- 2) Be presently engaged in refractory production or research work
- 3) Occupational experience of more than 3 years in production
- 4) Between 26 and 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Raw materials
 - Testing and evaluation of raw materials
 - Trial manufacturing of bricks
 - Application technology for industrial furnaces
- 2) Observation tours
 - Basics on High Temperature Refractories
 - Evaluation of individual raw materials and compound materials
 - Application of high temperature refractories for industrial furnaces and kilns
 - Application Technology of High Temperature refractories

5. FACILITIES AND INSTITUTIONS

Technical Research Laboratory of Mino Yogyo Co., Ltd.

6. REMARKS

1. PERIOD

September 5, 1991 to March 8, 1992 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in this field at industries, research institutes or vocational institutes
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lectures and practical training

Quality control: To study concept of quality control through the ideas of mean value, dispersion, etc. and how to summarize data for the quality control

Body preparation: To study tiles of earthenware, stoneware and porcelain and how to evaluate body preparation through lectures and experimentation

Forming: To study influence of green body on formed ware and structure of forming machine in dry and wet method

Analysis and evaluation of raw materials for the better-suited tile manufacturing:
To study the theory to evaluate and to apply raw materials for tile with analyzed data of raw materials

Glaze preparation: To study following items:
properties of materials, design and its printing methods, affinity of glaze to body, coloration of glaze in firing

Kiln and firing: To study construction of a tunnel kiln, kiln control technology and heat balance

Other products: Sanitary ware, Common brick, Roof tile, Clay pipe

2) Report presentation and Discussion

3) Observation tours

5. FACILITIES AND INSTITUTIONS

INAX Corporation

6. REMARKS

The large part of this training course is dedicated to the production process and technique of ceramic wall tile from raw materials to finished products. In addition, as for the other ceramic building materials (common brick, roof tile, sanitary ware, and so on), their production technique and problems are introduced during lectures and visits.

No. 193

HIGH TECHNOLOGY MATERIALS APPLICATION

フラインセラミックス応用技術

1. PERIOD

September 19, 1991 to December 13, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of more than 3 years
- 3) Between 26 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Resisting materials for wear, corrosion, chemicals etc.
 - Functional materials for photochemical, electromagnetic etc.
 - Superconductive materials
 - Application technology for other high technology materials
 - Application technology for future materials

5. FACILITIES AND INSTITUTIONS

- 1) Japan Fine Ceramics Center
- 2) Government Industrial Research Institute, Nagoya
- 3) Universities and public institutes
- 4) Related industries

6. REMARKS

PETROCHEMICAL INDUSTRY 石油化学工業

1. PERIOD

January 16, 1992 to February 29, 1992 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Presently engaged in responsible assignment and development planning in the field of petrochemical industry
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - General features of petrochemical industries
 - Petrochemical industries in the world (demand & supply)
 - Petrochemical industries in Japan
 - Petrochemical plant construction and engineering firms
 - Plastic processing technology
 - Planning, construction, production control, marketing, maintenance, safety and environmental problem of petrochemical industries
- 2) Observation and Field Trip
 - Observation visits to plants and relevant industries (ethylene, synthetic fibre, synthetic rubber plants, downstream industries, engineering firms, etc.)

5. FACILITIES AND INSTITUTIONS

Japan Petrochemical Industry Association (JPCA)

6. REMARKS

1. PERIOD

September 2, 1991 to August 31, 1992 (12 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalent in the field of chemical technology
- 2) Occupational experience as researchers of more than three (3) years in respective fields of chemical technology
- 3) Between 25 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Orientation at JICA and the Laboratory
- 2) List of themes for individual studies
 - Catalysis Engineering - Environmental Catalysis
 - Organic Chemistry - Applied Organometallic Chemistry
 - Studies on Synthesis and Function of Biosurfactant
 - Gene Technology - Protein Production in Yeast and Protein Engineering
 - Chemistry of Bioactive and Biomimetic Materials - Synthesis and Active Measurement
 - Lipid Chemistry
 - Environmental Chemistry - Photochemical Method
 - Removal of Inorganic Pollutants in Industrial Effluent
 - Development of Membranes and Membrane Reactors
 - Fossil Fuel Chemistry - Characterization and Utilization of Heavy Oils and Coals

5. FACILITIES AND INSTITUTIONS

- 1) National Chemical Laboratory for Industry, Ministry of International Trade and Industry
- 2) Tsukuba International Centre, JICA

6. REMARKS

1. PERIOD

August 29, 1991 to February 26, 1992 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. PERIOD

- 1) have master's degree or be equivalent with scientific experience of more than two years after university graduation.
- 2) be engaged in surface chemistry, organic chemistry, synthetic chemistry, applied chemistry, industrial chemistry, materials chemistry, catalytic science, electrochemistry or related fields.
- 3) have a good command of spoken and written English
- 4) preferably be under 40 years old
- 5) be in good health, both physically and mentally, to pursue the study. Pregnancy is regarded as disqualified.

4. DESCRIPTION OF TRAINING

- 1) Research for catalytic science
- 2) Observation and study tours to related facilities

The purpose of the course is to enable participants to understand both basic and practical aspects of catalysis through lectures on four main themes in catalysis: homogeneous catalysis, heterogeneous catalysis surface science and electrocatalysis. It is aimed to help and encourage the participants through laboratory courses in one of these themes to engage themselves in catalytic research field in future.

5. FACILITIES AND INSTITUTIONS

Catalysis Research Center, Hokkaido University

6. REMARKS

No. 197

BIOINDUSTRIES バイオインダストリー

1. PERIOD

May 9, 1991 to August 11, 1991 (3 months)

2. NUMBER of PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in this field for promotion of the industry at a government organization
- 3) Good working knowledge in English

4. DESCRIPTION OF TRAINING

- 1) Lectures and training
 - Basic technology of bioindustries
 - Applied technology of bioindustries
 - Strategy of bioindustries
 - Effective application of biological resources
 - Equipments & technology for bioindustries
 - Key points for planning & execution of bioindustries
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre
- 2) Bioindustry Development Center (BIDEC)
- 3) Public institutes & universities
- 4) Related industries

6. REMARKS

No. 198

ORGANIC FINE-CHEMICALS TECHNOLOGY 有機ファインケミカルズ工学

1. PERIOD

May 16, 1991 to September 16, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Master's or doctor's degree majoring in organic chemistry, or organic industrial chemistry (especially synthesis and application of color-stuff chemistry, dyes, detergents or intermediates of organic chemicals)
- 2) At least three (3) years of experience of manufacture, application or research in organic chemical technology
- 3) Between twenty-five (25) and thirty-five (35) years of age
- 4) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

Lectures, practices and factory observations on compounding techniques, application techniques of organic finechemicals, preventive measures against environmental pollution, handling techniques of analytical instruments

5. FACILITIES AND INSTITUTIONS

Osaka Municipal Technical Research Institute (OMTRI)

6. REMARKS

No. 199

POLYMER MATERIALS AND TECHNOLOGY 高分子材料工学

1. PERIOD

September 5, 1991 to December 23, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates having majored in organic chemistry or organic industrial chemistry, polymer chemistry or chemical engineering, or equivalent
- 2) At least 3 years of experience in production, test, research, application or development in organic chemical industry or polymer industry
- 3) Between 25 and 35 years of age
- 4) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

Lectures, practices and observations concerning production techniques of high performance, high functional polymer materials; molding techniques of high performance polymer materials; application techniques of functional polymer materials; characterization techniques of polymer materials; testing and evaluation techniques of polymer materials

5. FACILITIES AND INSTITUTIONS

Osaka Municipal Technical Research Institute (OMTRI)

6. REMARKS

1. PERIOD

January 30, 1992 to July 27, 1992 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Senior engineers engaged in research, development and/or manufacture in the field of glass technology
- 2) Occupational experience of at least 3 years
- 3) Under 35 years of age
- 4) University graduates from department of technology with Master's degree or above
- 5) Good working knowledge of English
- 6) Good health, both physically and mentally, to undergo the training

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practices
 - Functionality and future prospects of glass
 - Function related to light
 - Function related to electricity
 - Function related to surface
 - Raw materials of glass, purity
 - Glass structure and function
 - Melting techniques, including special melting techniques
 - Evaluation techniques of functionality
 - Application of functional glass
 - Mixing of raw materials of special glass, melting and forming
 - Heat treatment of glass
 - Measurement of functionality such as permeability and refraction index, etc.
 - Measurement of insulating property and conductivity
 - Measurement of modulus of elasticity and strength, etc.
- 2) Observations and study tours

5. FACILITIES AND INSTITUTIONS

Governmental Industrial Research Institute, Osaka (Agency of Industrial Science and Technology, Ministry of International Trade and Industry)

6. REMARKS

No. 201

QUALIFIED METAL CASTING TECHNOLOGY II 高品位鋳物技術 II

1. PERIOD

September 5, 1991 to March 8, 1992 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in foundry engineering at research institutes, educational institutes or industries
- 3) Occupational experience of more than 2 years
- 4) Under 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - High technology in materials
 - Moulding high technology
 - Advanced melting technology
 - Modern casting design
 - Equipment modernization
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre (NITC), JICA
- 2) Government Industrial Research Institute, Nagoya
- 3) Aichi Prefectural Industrial Research Institute
- 4) *Metal Industries Institute, Mie Prefecture*
- 5) Foundry Industries

6. REMARKS

No. 202

SURFACE MODIFICATION TECHNOLOGY FOR MATERIALS

(Metal, non-metal & new materials) II 表面改質技術（金屬・非金屬・新素材）II

1. PERIOD

April 11, 1991 to September 21, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 2 years
- 4) Under 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and/or Practical Training
 - Ni, Cr, Zn coat, Al-anodizing, phosphating
 - Plasma surface modification
 - Physical, chemical vacuum vapour deposit
 - Surface functionizing for electronics
 - Modification for composite, new materials
 - Surface modification for super conductive materials
 - Theory and practice of corrosion
 - Waste water treatment & recycling
 - Related high technology
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Industrial Research Institute, Aichi Prefecture
- 2) Nagoya Municipal Industrial Research Institute
- 3) The Plating Industrial Association of Aichi Prefecture
- 4) Nagoya International Training Centre (NITC), JICA
- 5) Industries

6. REMARKS

No. 203 ARC FURNACE AND CONTINUOUS CASTING CONTROL TECHNOLOGY
電炉・連铸管理技術

1. PERIOD

November 7, 1991 to March 8, 1992 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be university graduate majored in metallurgical or mechanical engineering or the equivalent,
- 2) be currently engaged in the field of electrical steel making for more than three (3) years and not be academic researchers or technicians,
- 3) be under thirty five (35) years of age,
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Steel materials
 - Electric arc furnace equipment and control units
 - Electrical steel making and its control
 - Continuous casting operation and computerized control
 - Secondary refining technology
 - Quality control
 - Others (refractories, electrodes, etc.,)
- 2) Observation tours
 - Control techniques of arc furnace melting
 - Control techniques of continuous casting
 - Other related techniques

5. FACILITIES AND INSTITUTIONS

- 1) Aichi Steel Works, Ltd.
- 2) Chubu Steel Plate Co. Ltd.
- 3) Daido Steel Corporation
- 4) Topy Industries Ltd.
- 5) Government Industrial Research Institute, Nagoya
- 6) Nagoya International Training Centre (NITC), JICA

6. REMARKS

No. 204

PROPERTIES AND TESTING OF STEEL PRODUCTS 鋼材の性質と試験検査

1. PERIOD

July 1, 1991 to November 3, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be university graduates in metallurgy, mechanics or chemical engineering.
- 2) have more than 2 years practical experience in production or fabrication of steel
- 3) be under 35 years of age
- 4) have a sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Introduction of steel production
 - Properties of steel products
 - Fundamental properties of steel
 - Testing and inspection technics of steel products
 - Quality control
- 2) Observation tours
 - Visits to steel-related industries

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Kyushu Institute of Technology
- 3) Fukuoka Industrial Technology Center, Mechanics & Electronics Research Institute
- 4) Nippon Steel Corporation, etc.

6. REMARKS

HEAT TREATMENT TECHNOLOGY 熱処理技術

1. PERIOD

September 5, 1991 to December 13, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of over 2 years
- 3) Mechanical or metallurgical engineer (not academic researchers)
- 4) Between 26 and 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - a) Basic Knowledge
 - Metallic Materials
 - Fundamentals of Heat Treatment
 - Heat Treatment Equipment
 - b) Heat Treatment of Steel and Iron
 - Structural Steel
 - High Speed Steel
 - Alloyed Tool Steel
 - Case Hardening
 - c) Related Technologies
 - Related Technologies
 - Quality Control
 - Technical Meeting
- 2) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Aichi Industrial Research Association
- 2) Industrial Research Institute, Aichi Prefecture
- 3) Related Industries

6. REMARKS

MAINTENANCE OF CONSTRUCTION MACHINERY 建設機械整備(英語)

1. PERIOD

May 14, 1991 to August 10, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates (mechanical engineering), or equivalent with occupational experience of more than 3 years
- 2) Presently engaged in or expected to be engaged in near future in planning and administration work in the field of construction machinery
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Development and present situation of mechanized construction work and use of construction machinery
 - Planning of mechanized construction work and use of construction machinery
 - Function, structure and performance of construction machinery
 - Maintenance, repair, inspection, troubleshooting and field construction machinery
 - Planning, layout, parts control, tool control and administration of work shop
 - Construction sites and related manufacturing firms
- 2) Practical training
 - Fundamental Practice: Engine, Clutch, Torqueconverter, Transmission, Final drive, Differential gear, Brake, Steering, Hydraulic System, Power shift transmission, Undercarriage, etc.
 - Specialized Practice: Bulldozer, Scarper, Grader, Wheel-loader, Hydraulic excavator, Crane, Compaction Machinery, Dump Trunk, etc.
- 3) Presentation of country report
- 4) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Construction
- 2) Japan Construction Mechanization Association

6. REMARKS

No. 207

**D'ENTRETIEN ET DE REPARATION DE L'EQUIPEMENT
DE CONSTRUCTION**

建設機械整備（仏語）

1. Durée

Du 3 Octobre 1991 au 22 Décembre 1991 (2 mois)

2. Nombre de participants à recevoir

Huit (8)

3. Qualifications

- 1) Etre titulaire de diplôme universitaire ou équivalent avec plus de trois ans d'expérience professionnelle
- 2) Etre engagé actuellement ou dans l'avenir dans le service de planification et d'administration dans le domaine de l'équipement de construction
- 3) Etre âgé de moins de 40 ans
- 4) Bonne connaissance de la langue française pour le travail

4. Nature de formation

1) Cours théoriques

- Planification de travail de construction mécanisé et utilisation d'équipements de construction
- Fonctionnement, structure, performance d'équipements de construction
- Entretien, réparation, inspection et dépiçage de pannes d'équipements de construction
- Planification, disposition, contrôle de pièces et d'outillage ainsi que gestion d'atelier de réparation

2) Travaux pratiques

- Pratique fondamentale = Moteur, Embrayage, Boîte de vitesses, Différentiel etc.
Pratique spécialisée = Bulldozer, Scraper, Niveleuse, Excavatrice, Grue

5. Etablissements et institutions

- 1) Centre International de Formation de Hachioji, JICA
- 2) Association Japonaise de Mécanisation de Construction

6. Remarques

Le Cours s'effectuera en français ou par la traduction du japonais en français

No. 208

MECANIQUE AUTOMOBILE VEHICULES DIESEL
(AUTOBUS, CAMIONS POIDS-LOURD)バス・トラック整備技術(仏語)

1. **Durée**

Du 9 janvier 1992 au 28 mars 1992 (3 mois)

2. **Nombre de participants à recevoir**

Onze (11)

3. **Qualifications**

- 1) Formation qualifiée dans leur domaine concerné
- 2) Expérience professionnelle de plus de 3 ans dans le domaine de l'entretien et la réparation de véhicules diesel
- 3) Age entre 25 et 40 ans
- 4) Bonne connaissance de la langue française pour le travail

4. **Nature de formation**

- 1) Cours et pratique
-Connaissances de base sur le mécanisme et le fonctionnement de véhicules diesel
- 2) Voyages d'études

5. **Etablissements et institutions**

- 1) Centre International de Formation de Hachioji, IICA
- 2) Hino Motors S. A.

6. **Remarques**

Le Cours s'effectuera en français ou par la traduction du japonais en français.

No. 209

PLANT MAINTENANCE ENGINEERING プラントメンテナンス技術

1. PERIOD

May 13, 1991 to October 3, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates or the equivalent
- 2) have 3 years' or more occupational experience in the field of plant maintenance business and is in charge of maintenance business today in continuous process plants, such as Iron & Steel, Oil Refinery or Chemical, Cement plant, Automotive plant etc.
- 3) not more than 45 year old
- 4) have a sufficient command of spoken and written English*

* For an example, it is desirable to hold TOEFL (Test of English as a Foreign Language) score more than 500 points.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Introduction
 - Computer Literacy
 - Procedures for Planning and Executing the Maintenance
 - Improvement Techniques
 - Maintenance Data Processing
 - Maintenance Management Simulation
 - Inspection Technique
 - Lubrication Technique
 - Non-destructive Testing
 - Sequence Control
 - Anti-fatigue Measures
 - Anti-Corrosion measures
 - Reliability Engineering
 - Management of Maintenance Cost
 - Maintenance Materials Management
 - Maintenance Skill Evaluation
 - Plant Visits
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Kyushu International Centre, IICA
- 3) Related Industries

6. REMARKS

AUTOMATIC CONTROL 自動制御

1. PERIOD

July 15, 1991 to December 5, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) Have two years' occupational experience or more in the field of production, planning of plants and machinery, or laboratory research and be engaged in the automation at present or in the near future.
- 2) Be those who graduated from university's engineering department of mechanics, electricity or instrumentation, or have the equivalent academic background.
- 3) Have a sufficient command of spoken and written English, and
- 4) Be not more than 40 years old
- 5) Be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) The course will be conducted in the form of:
Lecture/discussions, studies by simulators, field trips, etc.
 - Theory of feedback control and feedforward Control
 - Modeling and its application in practical situations
 - Advanced control theory
 - Measurement and sensors and its importance in the control system
 - Basic knowledge of hydraulic, pneumatic and electric sequence control circuits, and then designing
 - Application of hydraulic, pneumatic and electric actuators
 - Computer literacy
 - Programmable Logic Controller (PLC), programming methods, operation and maintenance techniques
 - Practice of operation and maintenance of the industrial robots of playback system
 - Process control system
 - Selection of process features and control characteristics
 - Measuring method of dynamic characteristics of process
 - Optimum adjustment by control instruments
 - Field observations
 - etc.

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Kyushu Institute of Technology etc.

6. REMARKS

No. 211

MACHINE CONDITION DIAGNOSIS TECHNIQUE 設備診断技術

1. PERIOD

June 24, 1991 to October 19, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be presently engaged and have more than three years job experience in maintenance
- 2) be those who graduated the faculty of engineering or have the equivalent academic background
- 3) have a sufficient command of spoken and written English
- 4) be not more than 35 years old
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practical Training
 - Introduction to Maintenance Management and Engineering
 - Reliability and Maintainability
 - Fundamentals of CDT
 - Condition Based Maintenance System
 - Practice of Data Control for CDT
 - Vibration Measurement and Analysis
 - Non-destructive Testing (NDT) for Machinery Inspection
 - Diagnostic Methods for Rotating Machines and Elements
 - Practice of Maintenance Management and Machine Condition Diagnosis
 - Personal Computer Control
- 2) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Related Industries

6. REMARKS

1. PERIOD

January 13, 1992 to May 18, 1992 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be university (Engineering Department) graduates or equivalent
- 2) have more than 3 years' occupational experience in the field of plant maintenance business
- 3) be not less than 30 years old, and not more than 40 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Basic Subjects
 - Computer Literacy (P)
 - Introduction to Maintenance Management (L)
 - "Management" on Shop Floor (L)
 - Maintenance Planning (L)
 - Nondestructive Testing (P)
 - Lubrication (P)
 - Inspection Technique (P)
 - Improvement Technique (L, P)
 - Data Processing Method (L)
 - Practical Maintenance Planning (L, P)
 - Maintenance Cost Control (L)
 - Maintenance Material Control (L)
 - Maintenance Skill Evaluation (L)
 - Fabrication Technique and Welding Control (L)
- 2) Plant Visit
 - Repair Job of Machine (L, P, F)
 - Spare Parts Reclamation (L, F)
 - Maintenance Activity in Steel Plant (L, F)
 - Maintenance Activity in Chemical Plant (L, F)
 - Maintenance Activity in Automotive Plant (L, F)
 - Maintenance Activity in Other Industries (L, F)
 - Machinery Manufacturer (L, F)
 - Electrical Machine Maintenance (L, F)

3) Study Trip

L; Lecture, P; Practice, F; Field Study

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Other related industries

6. REMARKS

No. 213

DESIGN & PRODUCTION OF SPARE PARTS FOR MAINTENANCE

保全用部品の設計・製造

1. PERIOD

June 3, 1991 to October 28, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) be those who have more than five years' and less than ten years' occupational experience in the field of maintenance engineering and is in charge of spare parts purchasing or controlling.
- 3) be under 40 years old
- 4) have a sufficient command of spoken and written English
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practical Training
 - Improvement Technique
 - Introduction to Plant Maintenance
 - Non-destructive Testing
 - How to Collect the Data and How to Use them
 - Basic Maintenance Management
 - Maintenance Spare Parts Management & Control
 - Parts Sketch
 - Manufacturing of Casting Forgings and Weldments
 - Practice of Spare Parts Manufacturing Job
 - Equipment Inspection Technique
 - CAD/CAM
 - Design Concept
 - Cause Investigation and Countermeasure for Spare Parts Breakage and Deterioration
 - Repair and Improvement Technique for Machine Parts
 - Machining & Assembly Procedure, Check Points, Test Run Procedure and Inspection Method, Technical Purchase Specification
- 2) Field Training & Observation Tour

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Kyushu Institute of Technology
- 3) Kitakyushu College of Technology
- 4) Fukuoka Industrial Technology Center
- 5) Related Industries

6. REMARKS

HIGH TECHNOLOGY OF METAL WORKS 金屬加工高品質化技術

1. PERIOD
September 19, 1991 to March 8, 1992 (6 months)
2. NUMBER OF PARTICIPANTS TO BE RECEIVED
Six (6)
3. QUALIFICATIONS
 - 1) University graduates or equivalent (mechanical engineering)
 - 2) Qualified in their respective fields
 - 3) Occupational experience of more than 3 years
 - 4) Between 26 and 35 years of age
 - 5) Good working knowledge of English
4. DESCRIPTION OF TRAINING
 - 1) Lectures and practical training
 - Advanced cutting technology & its new materials
 - Electronic control metal works
 - NC programming & metal works
 - CAD & CAM technology
 - Factory automation
 - 3-dimensional precision measurement
 - 2) Observation tours
5. FACILITIES AND INSTITUTIONS
 - 1) Nagoya International Training Centre (NITC), JICA
 - 2) Government Industrial Research Institute, Nagoya
 - 3) Industrial Research Institute, Aichi Prefecture
 - 4) Metal Working Industries
 - 5) Universities
Nagoya University and other related university
6. REMARKS

No. 215

PROCESS ENGINEERING FOR PRODUCTION MANAGERS

生産工程管理技術

1. PERIOD

May 9, 1991 to September 21, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than 5 years
- 2) In charge of production management, industrial engineering, production engineering, etc. (Production managers, supervisors and industrial engineers are most preferable. The engineers in other field of engineering will be acceptable.)
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practical Training
 - Industrial Development from Macroscopic Viewpoint
 - Practical knowledge of jigs & fixtures
 - Application of jigs & fixtures to process design and improvement
 - Practices of Plant Management
 - Plant improvement techniques
 - Integrated Production System
- 2) Visits to public & private organizations
- 3) Field trip to Kanto & Kansai area

5. FACILITIES AND INSTITUTIONS

- 1) CHU-SAN-REN (Central Japan Industries Association)
- 2) Related industries

6. REMARKS

1. PERIOD

April 27, 1991 to October 27, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Welding engineer or researcher
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Theoretical education
 - Welding processes and equipment ab 4 weeks
 - Materials and their behaviour during welding ab 4 weeks
 - Construction and design ab 2 weeks
 - Fabrication, applications engineering ab 4 weeks
- 2) Fundamental practical skills ab 2 weeks
- 3) Observation and practice in industries, research institutes and educational facilities and individual training ab 3 weeks

5. FACILITIES AND INSTITUTIONS

- 1) The Japan Welding Engineering Society
- 2) Universities, institutes, major private industries, medium and small factories.

6. REMARKS

No. 217

AIR-CONDITIONING ENGINEERING 空調技術

1. PERIOD

July 18, 1991 to November 25, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates majoring in mechanical engineering or electrical engineering
- 2) Experience of at least 3 years in air-conditioning engineering including system layout
- 3) Under forty (40) years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

Lectures, practices in plants and construction sites, on the job training and observation trips will cover the following items;

- 1) Fundamentals of air-conditioning
 - Fundamental knowledge
 - Basic practice
- 2) Air-conditioning basic works
 - Connecting pipings
- 3) Air-conditioning system design
- 4) Cooling and heating
 - Electric circuit
 - Mechanism and function of air-conditioners
- 5) Advanced system design

5. FACILITIES AND INSTITUTIONS

Sakai Plant, Daikin Industries, Ltd.

6. REMARKS

No. 218

DESIGN, MANUFACTURING AND MAINTENANCE OF INDUSTRIAL EQUIPMENT (CRANE)

産業機械(クレーン)の設計・製造・保全

1. PERIOD

October 28, 1991 to March 22, 1992 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) have 3 years' or more occupational experience on design, manufacturing or maintenance of industrial equipment
- 3) be not more than 40 years old
- 4) have a sufficient command of spoken and written English*

* For an example, it is desirable to hold TOEFL (Test of English as a Foreign Language) score more than 500 points.

4. DESCRIPTION OF TRAINING

- 1) Lectures and Discussions
 - Computer Literacy
 - Engineering Mechanics
 - Practical Design
 - Electrical Control
 - Improvement Technique
 - Machine Parts Manufacturing & Heat Treatment
 - Assembling of Overhead Crane
 - Maintenance Technique (including Machine Diagnosis Technique)
 - Non-Destructive Testing
 - Overhead Crane Testing
- 2) Field Study
- 3) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Kyushu International Centre, JICA
- 3) Hamada Heavy Industries Ltd.
- 4) Kyushu Institute of Technology
- 5) Related Industries

6. REMARKS

No. 219

OIL HYDRAULICS AND ITS APPLICATION 油圧とその応用

1. PERIOD

November 4, 1991 to March 29, 1992 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) have occupational experiences in the field of designing, manufacturing, operating or maintenance associated with oil hydraulics
- 3) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction to Oil Hydraulics
 - Construction and its Function of Elementary Components
 - Basic Conception in Application of Hydraulic System
 - Actual Application of Hydraulic System in Various Fields
 - Advanced Hydraulic System
 - Maintenance Techniques and its Practice in Actual Hydraulic System
- 2) Field Study
 - Application of Hydraulic System
 - Plant Visits
- 3) Study Trip

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association,
- 2) Mitsubishi Heavy Industries, Shimonoseki Ship Yard, Nippon Steel Yahata Works, Japan Casting and Forging Corp., Mitsubishi Nagasaki Machinery Manufacturing Corp., Hydraulic Unit Manufacturers and other several companies

6. REMARKS

No. 220

INSPECTION AND TESTING TECHNIQUES FOR HOUSEHOLD
ELECTRICAL APPLIANCES

電気製品検査技術

1. PERIOD

September 26, 1991 to December 4, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Testing staff belonging to Government Inspection Organizations, or Public Institutions authorized by the Government Inspection Organizations, or under the control of the Government
- 2) University graduates majored in Electrical, Electronics, Mechanical Engineerings or the equivalent
- 3) Occupational experience of more than 3 years
- 4) Between 25 and 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction to Export Inspection System
 - Summary of Sampling Inspection Method
 - Outline of Japanese Legal Requirements
- 2) Lectures and practical training
 - Technology transfer (fundamental techniques) of inspection & testing for General Electric Heaters, lighting equipment, General Communication Equipment and Cooking Appliance, General Electric Rotating Machinery, etc.
 - Introduction of techniques in using general type of testing equipment
- 3) Observation tour
 - Related manufacturers

5. FACILITIES AND INSTITUTIONS

- 1) International Trade and Industry Inspection Institute, Ministry of International Trade and Industry (IIT)
- 2) JMI Institute
- 3) Japan Electrical Testing Laboratory (JET)
- 4) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 221

SHIPBUILDING, REPAIRING AND MAINTENANCE

船舶建造メンテナンス

1. PERIOD

January 9, 1992 to December 7, 1992 (11 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) be university graduate who majored in engineering and have more than three (3) years of occupational experience in shipbuilding, repairing and maintenance
- 2) be not less than thirty five (35) years old
- 3) have a sufficient command of spoken and written English
- 4) be in good health, both physically and mentally
- 5) not be serving as a military personnel.

4. DESCRIPTION OF TRAINING

- 1) **Obligatory Subjects**
 - Basic planning I, II
 - Basic design
 - Hull design
 - Outfitting design
 - Ship repair
 - Marine engine
 - Marine Electrical equipment
 - Marine electronics
 - Computer application in shipbuilding
 - Outline of special purpose ship
 - Automation & energy saving methods on ships
 - Quality assurance in shipyards
 - International cooperation concerning shipbuilding
 - International convention on ship safety & environmental preservation
 - Special lecture
- 2) **Optional Subjects A**
 - Hull construction I, II
 - Outfitting process
 - Production control & shipyard management
 - Standardization in shipyards
 - Safety control in shipyards
 - Rationalization and modernization in shipyards
- 3) **Optional Subjects B**
 - Maintenance of ship machine I, II
 - Systems to secure ship safety
 - Ship safety standards I, II
 - Approval of plans I, II
 - Field survey and supervision I, II
 - Recent inspection technology and equipment

5. FACILITIES AND INSTITUTIONS

- 1) Maritime Technology and Safety Bureau, Ministry of Transport
- 2) Overseas Shipbuilding Cooperation Centre

6. REMARKS

No. 222

MOTORIZATION モーターゼーション

1. PERIOD

August 19, 1991 to October 6, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates
- 2) Should have basic knowledge of automotive engineering with administrative experience of more than 3 years
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Introduction
- 2) Motor industry and relevant policies in Japan
- 3) Motorization and vehicles in future
- 4) Technical knowledge on automobile engineering
- 5) Pollution and automobiles
- 6) Safety and automobiles
- 7) Observations

5. FACILITIES AND INSTITUTIONS

- 1) Japan Automobile Research Institute (JARI)
- 2) Tsukuba International Centre, JICA

6. REMARKS

RENOVATION OF INDUSTRIAL EQUIPMENT

設備のリノベーション

1. PERIOD

February 10, 1992 to July 12, 1992 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be university graduates in engineering
- 2) have experiences more than 3 years in plant engineering, designing or equipment maintenance
- 3) be under 40 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Maintenance and Renovation of Equipment
- 2) Technology Required for Planning of Equipment Improvement
- 3) Relevant Instrumentation
- 4) Design and Practice of Heat Exchangers

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Kurotaki Refractories Co., Ltd.
- 3) Takada Corporation
- 4) Nippon Steel Corporation
- 5) Mitsubishi Kasei Corporation, Ltd.
- 6) Shinnippon Nondestructive Inspection Co., Ltd.

6. REMARKS

TEXTILE MACHINERY INDUSTRIES II 繊維機械工業 II

1. PERIOD

May 9, 1991 to August 11, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be university graduates (preferably B. S. in Textile Engineering) or equivalent academic achievements with the managerial experience of at least five (5) years in production,
- 2) be presently engaged in the production of the textile industry,
- 3) between 27 and 40 years of age,
- 4) good working knowledge of English.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Textile industry in economical viewpoint
 - Fiber testing method
 - Spinning & weaving, warping & sizing, winding, and dyeing & finishing machines
 - Spinning & weaving plants
 - Production control
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Toyoda Automatic Loom Works, Ltd.
- 2) Aichi Prefectural Textile Research Centres

6. REMARKS

1. PERIOD

August 26, 1991 to February 3, 1992 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates
- 2) Occupational experience of more than 3 years
- 3) Not more than thirty five (35) years of age
- 4) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

- 1) Introductory lectures one week
Introduction of RIPT, Topics concerning
the individual research training
- 2) Individual studies sixteen weeks
 - Synthesis and Properties of Conjugated Polymers.
 - Synthesis and Modification of Bioactive Polymers.
 - Synthesis and Surface Properties of Functional Surfactants.
 - Fabric Surface Modification by Photochemical Treatments.
 - Electron-beam-induced Graft Copolymerization of Vinyl Compounds onto Polymeric Materials.
 - Protein Crystal Growth.
 - Single crystal X-ray Structure Determination of Cyclodextrin Supramolecular Compounds.
 - Thermal Studies on Polymer-Water Interaction.
 - Structure and properties of Oriented Semi-crystalline Polymers.
 - Studies on Miscibility Properties of Polymer Blends.
 - Study on Rheological Properties of Fibre/Particle Reinforced Polymer Melts.
 - Spinning of Porous Hollow Fibres and Their Characterization.
 - Structure and Properties of Vacuum Vapor Deposited Organic Thin Films.
 - Preparation and Characterization of Biomaterials for Medical Use.
 - Study on Advanced Biomimetic Materials.
 - Evaluation of Separation Characteristics of a Polymeric Membrane.
 - Weatherability of Polymeric Materials.
 - Numerical Analysis of composite Materials by Computer.
 - Man-Machine Interface Programming for Apparel CAD System.
- 3) Observation tour one week
- 4) Technical report making one week

5. FACILITIES AND INSTITUTIONS

- 1) Research Institute for Polymers and Textiles, Agency of Industrial Science and Technology (RIPT)
Ministry of International Trade and Industry
- 2) Tsukuba International Centre, JICA

6. REMARKS

INSPECTION AND TESTING TECHNIQUES FOR TEXTILE PRODUCTS

纖維製品検査技術

1. PERIOD

January 13, 1992 to March 22, 1992 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

Applicants should:

- 1) belong to Government Inspection Organizations or Public Inspection Institutions
- 2) be college graduates or equivalent
- 3) have occupational experience of more than 3 years
- 4) be between 25 and 40 years of age
- 5) have good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction to Export Inspection System
 - Outline of Japanese Legal Requirements
- 2) Lectures and Practical Training
 - Technical transfer (fundamental techniques) of inspection & testing for Textile Products
 - Introduction of knowledge about testing equipment
- 3) Observation tour
 - Private Enterprises

5. FACILITIES AND INSTITUTIONS

- 1) International Trade and Industry Inspection Institute, Ministry of International Trade and Industry (III)
- 2) Designated Inspection Organizations
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 227

WOOD BASED MATERIALS APPLICATION TECHNOLOGY

木質材料高度利用技術

1. PERIOD

August 22, 1991 to December 13, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of more than 5 years in the field of wood industry, belonging to a governmental organization
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Wood resources and their utilization
 - Production technology of improved woods
 - Wood based materials and surface finishing technology
 - Wood based materials and adhesive agents
 - Research and development for wood based materials processing

5. FACILITIES AND INSTITUTIONS

- 1) Nagaya Regional Forest Office, Forestry Agency
- 2) Universities and public institutes
- 3) Related industries

6. REMARKS

DEVELOPMENT AND APPLICATION TECHNOLOGY FOR
POTTERY AND PORCELAIN 陶磁器開発・活用技術

1. PERIOD

April 11, 1991 to October 27, 1991 (7 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) be university graduates or the equivalent, and have more than three (3) year practical experience at educational or research institutions related to ceramics,
- 2) be working at the ceramic manufacturing plant as an engineer or institutions of ceramic R & D as a researcher,
- 3) be between twenty-five (25) and forty (40) years of age,
- 4) have a sufficient command of spoken and written English,
- 5) be in good health, both physically and mentally, to undergo the course of training.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Raw materials
 - Preparation of bodies
 - Glaze
 - Screen printing (transfer paper)
 - Firing
 - Related to pottery & porcelain wares
 - Other subjects
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Government Industrial Research Institute, Nagoya
- 2) Tajimi City Pottery Design and Technical Centre
- 3) Institute for Comparative Pottery, Chukyo Junior College
- 4) Ceramic Industries

6. REMARKS

PACKAGING ENGINEERING 包装技術

1. PERIOD

August 26, 1991 to October 20, 1991 (2.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) Packaging engineers directly engaged in package industry at present
- 2) University graduates or its equivalent
- 3) Experience for more than 3 years in the relevant field
- 4) Good working knowledge of English
- 5) Under 40 years of age

4. DESCRIPTION OF TRAINING

- 1) Packaging Materials
 - Corrugated boards and boxes
 - Paperboard containers and printing
 - Treated papers and cellulose films
 - Plastic films
 - Plastic containers
 - Metal cans
 - Glass bottles
- * 2) and 3) are optional subjects.
- 2) Transport Packaging Techniques
 - Packaging plan
 - Transport packaging and wooden boxes
 - Outer packaging and its machines
 - Testing Methods and equipments
 - Packaging standardization
- 3) Consumer Packaging Techniques
 - Automation in Packaging operations and machines
 - Moisture-proof and gas-barrier packaging
 - Packaging design (graphic)
 - Safety and sanitation in packaging
 - Food packaging techniques
- 4) Technical Visit and Practical Training

5. FACILITIES AND INSTITUTIONS

- 1) Japan Packaging Institute (JPI)
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

1. PERIOD

September 2, 1990 to July 31, 1992 (11 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Be researcher with a bachelor's degree, in the field of mining and industrial technology
- 2) Have a practical experience (more than 3 years) of research work
- 3) Under 35 years of age
- 4) Have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Themes for Individual Studies
 - Thermophysical Property Measurements of Solid Materials (NRLM)
 - High Quality Grinding of Difficult-to-machine Materials (MEL)
 - Laser Diagnostics in Medicine and Biology (MEL)
 - Robotics (MEL)
 - Combustion Measuring Techniques of Diesel Engines (MEL)
 - Utilization of Natural Fats and Oils as Raw Materials for the Chemical Industry (NCLI)
 - Preparation and Characterization of Catalyst for Synthesis Gas Conversion (NCLI)
 - Studies on Electrode Reaction and Electrode/Electrolyte Interface (NCLI)
 - Effective Utilization of Biomass Using Enzyme (FRI)
 - Thermosensitive Polymer (RIPT)
 - Synthesis and Physical Properties of Functional Surfactants (RIPT)
 - Conducting Polymers (RIPT)
 - Weatherability of Polymeric Materials (RIPT)
 - Evaluation of Mineral Potential in the Mining Field (GSJ)
 - Reliability Evaluation in High Temperature Atmosphere for Electronic Devices (ETL)
 - Semiconductors Crystal Growth by Molecular Beam Epitaxy (ETL)
 - Ultrafast measurements of semiconductor devices (ETL)
 - Intensified Heat Pipe Heat Exchange for High Temperature (NRIPR)
 - Acid Rain (NRIPR)
 - Measuring Method of Source Dust (NRIPR)
 - Studies on Selective Separation of Heteroatomic Components in Coal Oil by Supercritical Fluid (GIDLH)
 - Upgrading of Coal Liquids and Alkylated aromatics by Steam over Metallic Oxide Catalysts (GIDLH)
 - Studies on Rapid Pyrolysis of Bituminous Substances such as Coals (GIDLH)
 - Heat and Mass Transfer in Porous Media (GIRIT)
 - Study on Ceramic Infrared Radiants and their Application (GIRIN)
 - Pottery Manufacturing Technology and Characterization (GIRIN)
 - Thermophysical Properties of Solar Materials (GIRIN)
 - Research on the Hydrogenation of CO₂ by Catalyst (GIRIO)
 - Studies on Inorganic Microencapsulation of Pigments (GIRIO)
 - Study on the new glass melting technique for high homogeneous lead glass (GIRIO)
- 2) Observations
 - To related institutions

5. FACILITIES AND INSTITUTIONS

- 1) Japan Industrial Technology Association
- 2) Agency of Industrial Science and Technology (AIST)
- 3) Tsukuba International Centre, JICA

6. REMARKS

ENERGY

ENERGY CONSERVATION 省エネルギー

1. PERIOD

October 14, 1991 to December 4, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirteen (13)

3. QUALIFICATIONS

- 1) be university/college graduates or equivalent and be presently employed in government, governmental institutions, industrial associations, or companies,
- 2) be presently engaged in work in the energy field or expected to be engaged in such work after returning to the country,
- 3) Good working knowledge of English.

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Energy Situation in Japan
 - Energy Conservation in Major Industries
 - Energy Management in Industry
 - Technology Development
- 2) Practice
 - Energy Management in Industry
- 3) Presentation
 - Energy Conservation Promotion of Model Factory
 - Country Report
- 4) Observation
 - Successful Cases of Energy Conservation
 - Energy Conservation Equipment Manufacturer

5. FACILITIES AND INSTITUTIONS

- 1) Energy Conservation Center, Japan (ECC)
- 2) Agency of Natural Resources and Energy, Ministry of International Trade and Industry
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

1. PERIOD

November 11, 1991 to April 2, 1992 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) be those who have energy management experience or be in charge of energy management in near future
- 3) be not more than 35 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction of Energy Management
 - Basic Thermodynamics
 - Basic Electrical Engineering & Energy Conservation
 - Automatic Control
 - Heat Balance
 - Energy system for Environmental Pollution Control
 - Basic theory of Electricity
 - Methodology of Energy Conservation
 - Energy Conservation Measures for Industrial Furnaces
- 2) Practical Training
 - Heat Calculation by Microcomputer
 - Automatic Control
 - Heat Measurement
 - Basic theory of Electricity
 - Methodology of Energy Conservation
- 3) Plant Visits and Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Kyushu International Training Association
- 2) Kyushu Institute of Technology
- 3) Fukuoka Industrial Technology Centre
- 4) Related Industries

6. REMARKS

No. 233

HYDRO-ELECTRIC POWER ENGINEERING II 水力発電Ⅱ

1. PERIOD

May 14, 1991 to June 29, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be electrical and/or mechanical engineers who are presently employed at governmental institutions or private companies in the field of electric power supply,
- 2) be technical college graduates or equivalent and have more than three (3) years and less than ten (10) years of practical experience,
- 3) have sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

- 1) Lectures:
 - Japan's Electric Power Industry
 - Orientation for EPDC's Programme
 - Construction Record Films
 - Present Situation and Future Prospect of EPDC
 - Planning of Power System
 - Operation and Maintenance of Hydro-electric Power Plant
 - Design and Construction of Hydro Power Station, Substation facilities
 - Operation and Maintenance of Hydro-electric Power Plant
 - Others
- 2) Visits:
 - Central Load Dispatching Control Office
 - EPDC's Hydro-electric Power Station
 - Others

5. FACILITIES AND INSTITUTIONS

- 1) Japan Electric Power Information Center, Inc.
- 2) Electric Power Development Co., Ltd.
- 3) Agency of Natural Resources and Energy, Ministry of International Trade and Industry (MITI)
- 4) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 234

OPERATION AND MAINTENANCE OF COAL-FIRED THERMAL POWER ENGINEERING

石炭火力発電

1. PERIOD

October 1, 1991 to November 27, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Technical college graduates or equivalent
- 2) Qualified in their respective fields (Electrical and mechanical engineering in operation and maintenance)
- 3) Occupational experience of more than 7 years
- 4) Between 30 and 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Japanese electric power policy
 - Operation and maintenance of coal-fired thermal power station
 - Simulation training [Drum-type boiler]
 - Countermeasures for environmental preservation
- 2) Observation tours
 - Various types of power station
 - Coal-fired thermal power stations
 - Manufacturers of equipment related to Coal Fired Thermal Power Industry

5. FACILITIES AND INSTITUTIONS

- 1) Japan Electric Power Information Centre, Inc.
- 2) Electric Power Development Co., Ltd.

6. REMARKS

No. 235

NUCLEAR POWER GENERATION 原子力発電

1. PERIOD

January 13, 1992 to March 20, 1992 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Be nuclear, electrical and/or mechanical engineers presently employed at governmental institutions or private companies in the field of electric power generation.
- 3) Occupational experience of more than 3 years
- 4) Be under 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction
 - General features of nuclear power plant
 - Construction
 - Operation/safety management
 - Nuclear fuel cycle
- 2) Visits and observation tours
 - Nuclear power stations
 - Manufacturing plants

5. FACILITIES AND INSTITUTIONS

- 1) Japan Electric Power Information Center, Inc. (JEPIC)
- 2) The Japan Atomic Power Company (JAPC)
- 3) Agency of Natural Resources and Energy, Ministry of International Trade and Industry
- 4) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

ELECTRIC POWER MANAGEMENT 電気事業経営

1. PERIOD

September 5, 1991 to October 20, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be manager-class engineers in electric power authorities with at least ten-year working experience or at least directors of divisions of Central Government Offices,
- 2) be between thirty (30) and fifty (50) years of age,
- 3) have a sufficient command of spoken and written English, and
- 4) be in good health, both physically and mentally, to undergo the course of training.

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Outline of the electric power industry in Japan
 - Organization, personnel management, labor management and education
 - Electric power supply plan, electric power sources development plan
 - Power systems operation
 - Plan, construction, operation, and maintenance of power transmitting and distributing facilities
 - Customer services
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Japan Electric Power Information Centre, Inc.
- 2) Chubu Electric Power Co., Ltd.
- 3) Agency of Natural Resources and Energy, Ministry of International Trade and Industry

6. REMARKS

ELECTRIC POWER DISTRIBUTION ENGINEERING 配電技術

1. PERIOD

September 5, 1991 to November 21, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Technical college graduates or equivalent
- 2) Qualified in respective fields
- 3) Professional experience of more than 5 years
- 4) Between 25 and 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Japan's electric power policy
 - Transmission, transformation and distribution lines
 - Design, construction and maintenance of transmission lines
 - Distribution facilities and work
 - Indoor and outdoor wiring, etc.
- 2) Observation tours
 - Various types of power stations
 - Various facilities related to power distribution
 - Manufacturers of equipments related to power distribution

5. FACILITIES AND INSTITUTIONS

- 1) Agency of Natural Resources and Energy, Ministry of International Trade and Industry
- 2) Japan Electric Power Information Center, Inc.
- 3) Kansai Electric Power Co., Inc.

6. REMARKS

COAL SCIENCE AND TECHNOLOGY 石炭資源開発・利用

1. PERIOD

September 30, 1991 to December 12, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) have three years' occupational experience or more in the field of coal science and technology
- 2) be university graduates or equivalent academic background
- 3) have a sufficient command of spoken and written English
- 4) be not more than 45 years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures (basic & advanced)
 - Coal Geology
 - Coal Mining Engineering
 - Coal Chemistry
 - Mechanical Engineering for Coal Utilization
 - Environmental Engineering for Coal Utilization
- 2) Experimental study
- 3) Observation
 - Coal mines and factories in Hokkaido, Tokyo (Tsukuba etc.) & Kyushu

5. FACILITIES AND INSTITUTIONS

- 1) Hakozaki (Main) Camps, Faculty of Engineering and Faculty of Science, Kyushu University
- 2) Institute of Advanced Material Study, Kyushu University

6. REMARKS

1. PERIOD

August 27, 1991 to November 4, 1991

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

Applicants should:

- 1) be university or college graduates who have basic knowledge of coal mining or the equivalent,
- 2) be mining geologists, mining engineers, preparation engineers or other engineers concerned with coal mining industry who are presently employed at one of the government institutions or private companies in the field of coal mining,
- 3) have more than five (5) years of practical experience,
- 4) have a sufficient command of spoken and written English,
- 5) be between approximately thirty-five (35) and forty-five (45) of age, and
- 6) be in good health, both physically and mentally, to undergo the course of training.

4. DESCRIPTION OF TRAINING

The course will consist of the following;

- 1) Lectures on:
 - Coal Mining History of Japan and Recent Technology
 - Coal Policy of Japan
 - General and Practical Technology of
 - Coal Winning
 - Roadway Drivage
 - Coal Preparation
 - Coal Cleaning
- 2) Observation Tours
 - Visits to:
 - Main collieries - Taiheiyo, Akabira and Miike
 - National Research Institute for Pollution and Resources (NRIPR)
 - Coal Gasification Plant
 - Manufacturers of Related Equipment
- 3) Presentation of Country Report

5. FACILITIES AND INSTITUTIONS

The Coal Mining Research Centre, Japan (CMRCJ)

6. REMARKS

1. PERIOD

January 16, 1992 to March 25, 1992 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be college graduates or university graduates who have majored in science or technology, or those who have equivalent technical knowledge,
- 2) be working or going to work in organizations concerned with nuclear technology fields,
- 3) have a sufficient command of spoken and written English, this item will be checked strictly,
- 4) be under forty (40) years of age

4. DESCRIPTION OF TRAINING

1) Lectures

- a) Basic Subjects:
Nuclear Physics, Nuclear Chemistry, Radiation Physics, Radiation Measurements, Radiobiology and Biological Effects, Radiation Chemistry, etc..
- b) Radiological Protection:
Principle of Radiological Protection, Safety Handling of Radioactive Material and Protection against Radiation, Radiation Monitoring, Radioactive Waste Management, etc..
- c) Radiation and Radioisotope Applications:
Radiation Sources and Irradiation Facilities, Applications in Industry, Applications in Agriculture, etc..
- d) Reactor Engineering:
General Concept of Nuclear Reactors, Type of Nuclear Reactors, Nuclear Fuels and Materials, Reactor Safety, Reactor Physics, Reactor Dynamics and Control, etc..

2) Laboratory Exercises:

- a) Basic Experiments:
Computer Programming, Beta Radiation Measurements with GM Counter, Gamma-ray Spectrometry with NaI (Tl) Scintillation and Germanium Detectors, Radiation Dose Measurement, Radiation Track Observation etc..
- b) Radiation Monitoring:
Area Dose Rate Measurement, Air-borne Activity Measurement and Liquid Effluent Activity Measurement, Surface Contamination Measurement and Decontamination etc..
- c) Radiation and Radioisotope Applications:
Radiochemical Separation, Liquid Scintillation Counting, Autoradiography, Gamma-ray Radiography, Neutron Radiography, Gamma-ray Spectroscopy, Activation Analysis etc.
- d) Reactor Engineering:
Neutron-Flux Measurements, Reactor Operation, Experiments on Reactor Characteristics etc..

3) Practical Exercises

4) Observation

5. FACILITIES AND INSTITUTIONS

- 1) Japan Atomic Energy Research Institute (JAERI)
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 241

SEMINAR ON NUCLEAR SAFETY AND REGULATION

原子力安全規制行政セミナー

1. PERIOD

October 21, 1991 to November 17, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Senior officers in charge of national nuclear safety regulation and control,
- 2) University graduates or equivalent with at least five years' experience in his/her job,
- 3) A sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

1) Lectures

- Nuclear Energy and Its Safety Administration
- Nuclear Safety Regulation in Japan
- Safety Regulations on the Application of Radiation and Radioisotopes
- Safety Regulations on the Research Reactors
- Safety Regulations of Nuclear Fuel Facilities and Transportations
- Safeguards and Physical Protection of Nuclear Materials in Japan
- Safety Regulation and Administration for Commercial Nuclear Power Plants in Japan
- Safety Regulation on the Management and Disposal of Radioactive Wastes
- Off Site Disaster Preventive Measures for Nuclear Power Plants

2) Observation and study tour

3) Presentation of Country Reports and Discussion

5. FACILITIES AND INSTITUTIONS

- 1) Nuclear Safety Bureau, Science and Technology Agency
- 2) Japan Atomic Industrial Forum
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

1. PERIOD

August 19, 1991 to December 16, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be JICA ex-participants who have successfully completed the "Geothermal Energy" Course held at Kyushu University
- 2) or have been engaging in the field of geothermal energy development for three years at least
- 3) be leading staff in their organization, and not over forty-five (45) years old in principle
- 4) have a sufficient command of spoken and written English,
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation the training.

4. DESCRIPTION OF TRAINING

- 1) Lectures (Compulsory)
 - Geothermal Geology
 - Fluid Inclusion
 - Hydrothermal Geochemistry
 - Geothermics and Geothermal System
 - Geothermal Hydrology
 - Isotope Geochemistry
 - Economic Aspects of Geothermal Development
 - Direct Uses of Geothermal Energy
 - Thermodynamics
 - Heat Transfer
 - Chemical Analysis of Geothermal Fluids
 - Geochemical Exploration
 - Chemistry of Scale Formation
 - Assessment of Geothermal Resources
 - Drilling Technology
 - Geothermal Power Plant Engineering
 - Application of Pocket Calculator to Geothermal
 - Fundamentals of Corrosion
 - Environmental Problems and Countermeasures
- 2) Experimental study
- 3) Observation

5. FACILITIES AND INSTITUTIONS

- 1) Geothermal Research Centre, Faculty of Engineering, Kyushu University
- 2) Hatchobaru Geothermal Power Station, Kyushu Electric Power Co., Inc.

6. REMARKS

No. 243

RADIOLOGICAL PROTECTION FOR RADIATION SAFETY OFFICER

放射線安全管理実務者

1. PERIOD

January 27, 1992 to March 6, 1992 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) be university graduates who have majored in science or technology, or those who have equivalent technical knowledge
- 2) be working or going to work for organizations concerned with nuclear energy or utilization of radioisotopes
- 3) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - A) Basic knowledge for radiation protection
 - B) Environmental monitoring, personal dosimetry and radiation measuring instruments
- 2) Laboratory exercises
Radiation measurement practice using Ion chamber, GM counter, ZnS (Ag) counter
- 3) Field exercises
Maintenance and calibration of radiation monitoring instruments
- 4) Observation tour

5. FACILITIES AND INSTITUTIONS

- 1) Power Reactor and Nuclear Fuel Development Corporation (PNC)
- 2) Tokai Works, PNC
O-arai Engineering Centre, PNC

6. REMARKS

COMMERCE AND TRADE

1. PERIOD

January 9, 1992 to March 27, 1992 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in the respective fields
- 3) Professional experience of more than 5 years
- 4) Under 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
- Japanese measures pertaining to promotion of small businesses, especially particulars of development of smaller businesses and practices in financing, grouping, structural improvement and managerial/technical guidance.
- 2) Observations
- 3) Study trips

5. FACILITIES AND INSTITUTIONS

International Cooperation Service Center (ICSC)

6. REMARKS

1. PERIOD

October 31, 1991 to March 8, 1992 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be such personnel assigned to business diagnostic services, management consultancy, and extension services at the organization dealing with development and promotion of small scale industries,
- 2) be university graduate or those who possess equivalent professional qualifications in this field. In addition, the basic knowledge to prepare financial statement of a business corporation is prerequisite condition for participation in this training course.
- 3) have at least three (3) year experiences of such activities as mentioned above, having already undergone the basic training on business management,
- 4) between 30 and 45 years of age
- 5) good working knowledge of English.

4. DESCRIPTION OF TRAINING

- 1) Lectures and Discussions:
 - System & measures for small industries promotion in Japan
 - Basic understanding to business management
 - Techniques & methods of business diagnosis
 - Program implementation & training
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Aichi Industrial Research Association
- 2) Aichi Prefectural Small Business Guidance Center
- 3) Aichi Small Scale Enterprise Promotion Corporation

6. REMARKS

No. 246

PRODUCTION MANAGEMENT (THEORY & PRACTICE
ON WORK IMPROVEMENT)

生産性向上技術

1. PERIOD

October 21, 1991 to March 7, 1992 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Have more than 5 years' occupational experience in the field of Production management,
- 2) be graduate from a faculty of engineering or have the equivalent academic background,
- 3) Have a sufficient command of spoken and written English,
- 4) Be under 40 years old,
- 5) Be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as disqualifying condition for the participation in the training.

4. DESCRIPTION OF TRAINING

- 1) Lecture on basic subject to improve productivity and job improvement practices on factory floors.
 - Computer Literacy
 - Quality control and 7 tools
 - QC circle activity
 - Value Engineering
 - Productivity Improvement Engineering
 - Engineering Economy
 - Industrial Engineering
 - Total Productive Maintenance
 - Employee Education
 - Computer Utilization etc.
- 2) Field trips

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Toto Co., Ltd.
- 3) Yasukawa Electric Mfg. Co., Ltd.
- 4) ASA Systems Inc.
- 5) Mishima Kosan Co., Ltd., etc.

6. REMARKS

PRODUCTIVITY MANAGEMENT 実践の総合生産性向上

1. PERIOD

April 8, 1991 to June 9, 1991 (2 months)

2. NUMBER of PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be engaged in productivity management guidance, or plant management.
- 2) have at least five (5) years of experience in the field covered by this training course, i.e., industrial engineering, research and development of overall plant productivity.
- 3) be between thirty (30) and forty (40) years of age.
- 4) have a sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

- 1) the plans for improvement of plant-level productivity.
- 2) the production management techniques and application methods.
- 3) the practical methods of quality control, cost control, and delivery time control.
- 4) the skills for improvement of overall plant operations for higher productivity.

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Japan Productivity Centre

6. REMARKS

SEMINAR SHIPBUILDING MANAGEMENT

造船経営管理セミナー

1. PERIOD

September 23, 1991 to November 29, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) More than 8 years occupational experience in the field of management in the governmental, public, or shipyards organization
- 3) Between 35 and 50 years of age
- 4) Good working knowledge of English
- 5) Not serving as a military personnel

4. DESCRIPTION OF TRAINING**Lectures**

- a) Outline of Shipbuilding Industries and Shipbuilding Management in Japan
 - Present Situation of Shipbuilding Industries
 - Shipbuilding Related Industries
 - Ship Classification Society
 - Maritime Credit Corporation and Coastal Vessels
 - Introduction of Management Control
 - Specific Characteristics of Shipyard Management
- b) Shipyard Management and Control of Business Activities
 - Control of New Order Conclusion
 - General Conception of Financial Management
 - Business Fund and Profit Control
 - Yard Facilities Procurement and Operation Fund
 - Planning, Operation and Control of Budget
 - Cost Accounting Control
 - Analysis of Shipyard Management
 - Evaluation of Business Activities

- c) Production Control in Shipyard Management
 - Significance, Role and Problems of Design Work
 - Scheduling in Design Department
 - Quality Control in Design Work
 - Standardization
 - Material Control
 - Role of Production Department
 - Safety Control
 - Quality Control in Production
 - Production Control and Scheduling
 - Labor Management
 - Total Quality Control
 - Repair Job Site Control
- d) International Cooperation
 - Example of International Cooperation
 - Economic Cooperation Fund
- e) Announcement of Country Reports and Discussions

Observation and Study Tour

The purpose of observation and study tour is to introduce participants systems of management and facilities of shipyards, and related industries.

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Transport
- 2) Overseas Shipbuilding Co-operation Centre

6. REMARKS

No. 249

INVESTMENT PROMOTION SEMINAR (1) 投資促進セミナー(1)
(Asian Countries) (アジア諸国)

1. PERIOD

June 27, 1991 to July 31, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Senior officials of governmental or semi governmental organizations, or equivalent position in economic promotion organizations with occupational experience of more than five (5) years
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and Discussion
Purpose: To learn Japan's overseas investment promotion policy and measures with special relevance to the organizations conducting direct investment promotion.
 - a) Outline of Japan's Overseas Direct Investment
 - b) Japanese Government Action to Promote Overseas Direct Investment
 - c) Promotion for Overseas Direct Investment by other organizations
 - d) Investment Insurance
- 2) Country Report
Purpose: To analyze present situation and incentive of the participants' countries and discuss the problems among participants tutored by the expert of global trade and investment problems.
 - a) Investment incentives in participants' country
 - b) Future programs in the promotion of the overseas investment to participants' country
- 3) Problems in the promotion of the overseas direct investment
Purpose: To analyze the problems hindering the international investment and search for the future plans of incentives to improve direct investment to the participants' countries.
 - a) Legislative Problems
 - b) Improvement of Infrastructure
 - c) Managerial Problems in multinational Enterprises
- 4) Field Trips

5. FACILITIES AND INSTITUTIONS

- 1) The World Trade Centre of Japan, Inc. (WTC)
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 250

INVESTMENT PROMOTION SEMINAR (2) 投資促進セミナー(2)
(Latin American Countries) II (ラテンアメリカ諸国) II

1. PERIOD

September 26, 1991 to November 9, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Senior officials responsible for administration of international investment in governmental or semi-governmental organizations or equivalents in economic promotion organizations with experience of more than 5 years.
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lectures and discussions

- a) Outline of Japan's Overseas Direct Investment and the Organizations Conducting Direct Investment Promotion
 - Ministry of International Trade and Industry (MTI)
 - Japan Overseas Development Corporation (JODC)
 - The Export-Import Bank of Japan
- b) Japanese Government Actions to Promote Overseas Direct Investment
 - JETRO's Activities
 - PAC (Project Arrangement Coordination Consulting) Program
 - Investment Consulting by the Export-Import Bank of Japan
 - Investment Insurance
- c) Promotion for Overseas Direct Investment by Other Organizations
 - Chambers of Commerce and Industry
 - Industrial Associations
 - Sōgō Shōsha
 - Private Banks
 - Local Governments (Prefectures, Cities, etc.)
- d) Problems in the Promotion of the Overseas Direct Investment
 - Legislative Problems
 - Improvement of Infrastructure
 - Managerial Problems in Multinational Enterprises
- e) Japanese and International Economies
 - History of Japan's Economy and International Trade
 - Japanese Enterprises
 - Personnel Management in Japan
 - Decision making System in Japan
- f) Research Assignment
- g) Country Report
(Report Presentation)

2) Observation Tours and Field Trips

5. FACILITIES AND INSTITUTIONS

- 1) World Trade Center of Japan, Inc. (WTC)
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

TRADE PROMOTION SEMINAR (1) 貿易振興セミナー(1)
(Asian & Pacific Countries) (アジア・太平洋諸国)

1. PERIOD

May 9, 1991 to June 22, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) University graduates or the equivalent.
- 2) Senior officials of governmental or semi-governmental organizations in their respective field with experience of more than 5 years
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lectures and discussions

I. Japan's trade promotion -- Past & present

Purpose: To learn the past Japanese Export Promotion Policy and measures with special relevance to their feasibility of application in participants' countries.

- a) History of Japan's International Trade
- b) Japanese enterprises' effort to export
- c) Trade Insurance -- Export Insurance
- d) Trade Policy of Japan -- Past & present
- e) Aid to Export-Import
 - Japan External Trade Organization
 - Chamber of Commerce
 - Industrial Associations
 - Trade Financing - support to overseas investment

II. Japan as a Market

Purpose: To learn the present situation of the Japanese economy and trade, especially its characteristics as a target of export from participants' countries.

- a) Corporate Decision Making -- Working System of Japan
- b) Meeting with businessmen
- c) Japan as a market
- d) Businessmen's advice for entering the Japanese market

III. Country Report

Purpose: To analyze present situation of the participants' countries and discuss the problems among participants tutored by the expert of each country

2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) The World Trade Centre of Japan, Inc. (WTC)
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

TRADE PROMOTION SEMINAR (2)

貿易振興セミナー(2)

(African Middle-East & Carribean Countries) II (アフリカ・中近東・カリブ諸国)II

1. PERIOD

January 23, 1992 to March 7, 1992 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Senior officials of governmental or semi-governmental organizations in their respective fields with more than 5 years of practical experience in the administration of international trade.
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
 - a) Japanese Export Promotion (in the past)
 - History of Japan's International trade
 - Japanese Enterprises, Effort to Export
 - Trade Insurance-Export Insurance
 - Trade Financing
 - Administrative Guidance
 - Aid to Export (Chamber of Commerce and Industry, Industrial Associations)
 - b) Japan as a Market-1
 - Import Policy
 - Import activities of JETRO
 - Aid to Import (sōgō shōsha)
 - Personnel Management in Japan
 - Decision Making System in Japan
 - c) Japan as a Market-2
 - Marketing in Japan
 - International Marketing
 - Opening a Market
 - d) Country Report
 - e) International Economy
- 2) Practical training
Independent Marketing Research
- 3) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) The World Trade Centre of Japan, Inc. (WTC)
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 253

FOREIGN TRADE PRACTICE FOR LEADERS 貿易実践指導者

1. PERIOD

August 20, 1991 to December 6, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than 3 years
- 2) Leading officers in administration of foreign trade
- 3) No less than 26, and not more than 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

Lecture and practical training

- Theory, policy and structure of trade
- Business practice of trade transaction
- Function and system of customs
- Export insurance and inspection of export and import goods
- Foreign exchange and foreign trade finance
- Marine insurance
- Transportation
- Dispute and settlement
- Communication

5. FACILITIES AND INSTITUTIONS

- 1) Kobe International Association
- 2) Hyogo International Centre, JICA
- 3) The Kobe Chamber of Commerce and Industries
- 4) Kobe University
- 5) Kobe Customs House, Ministry of Finance

6. REMARKS

No. 254 INTELLECTUAL PROPERTY RIGHTS IN TECHNOLOGY TRANSFERS

國際知的財產權

1. PERIOD

June 20, 1991 to September 23, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Senior administrators directly in charge of registration intellectual property rights or the related field in their Governments,
- 2) Professional experience of at least 5 years,
- 3) University graduates from the department of law,
- 4) Good health both physically and mentally,
- 5) Under 40 years of age,
- 6) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures, discussions, practical training
 - Industrial development and trade policies in Japan
 - Intellectual properties and contracts
 - Legal problems related to international trade and technology transfer
 - Japanese legal system on technology trade
 - Patent act, utility model act, design act, patent act, copyright act, act providing special provisions for registration of program works, act concerning the layout of a semiconductor integrated circuit
 - Practical exercises of entering into technology contract in international trade
- 2) Observations and study tours
 - Status quo of technology contracts in Japan
 - Observations and case studies at private companies in various fields

5. FACILITIES AND INSTITUTIONS

Kyoto Comparative Law Center

6. REMARKS

TOURISM

1. PERIOD

October 7, 1991 to December 8, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eighteen (18)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of more than 3 years
- 3) Presently engaged in tourism promotion activities in public tourist organizations
- 4) Between twenty five (25) and thirty five (35) years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - a) Japanese Tourism Policy and Administration
 - Government Policy and Action (Central and Local Government)
 - Tourism Laws and Regulations
 - Current Policy Development
 - Official Development Assistance
 - b) Japanese Tourism Industries and Their Activities
 - Travel Agency Business
 - Hotel and Ryokan (Japanese-style Hotel) Business
 - Tourist Guide Business
 - Transportation Business (Airline Business, Cruise Business, etc.)
 - c) Japanese Inbound Promotion Activities by NTO
 - d) Promotion Activities towards Japanese Travel Market
 - Basic Characteristics of Japanese Travel Market
 - Promotion Activities by Foreign NTO
- 2) Presentation and Discussion of Country Report
- 3) Observation and Study Tour

5. FACILITIES AND INSTITUTIONS

- 1) Tourism Department, Ministry of Transport
- 2) International Tourism Development Institute of Japan (ITDIJ)
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

HUMAN RESOURCES

No. 256

INTENSIVE JAPANESE LANGUAGE (A) 日本語専修(A)

1. PERIOD

September 5, 1991 to March 8, 1992

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) be presently engaged directly or indirectly in JICA's cooperation programme,
- 2) be under thirty (30) years of age,
- 3) have a sufficient command of both spoken and written English, and
- 4) be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as a disqualifying condition for the participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Elementary lessons Book 1 ~ 3
 - Writing practice
 - Pronunciation
 - Vocabulary
 - Basic grammar
- 2) Intermediate lessons Book 4 ~ 5
 - Strengthening and enlarging conversation skills
 - Strengthening reading and comprehension skills
 - Training for composition skills
- 3) Speech contest
- 4) Field trip
- 5) Final production

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 257

INTENSIVE JAPANESE LANGUAGE (B) 日本語専修(B)

1. PERIOD

October 24, 1991 to June 29, 1992

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) The counterpart of the overseas project conducted by JICA or a governmental officer in charge of Japanese technical cooperation
- 2) Be university graduates or have the equivalent academic background
- 3) Have sufficient command of both spoken and written English
- 4) Be in good health, both physically and mentally, to undergo the training

4. DESCRIPTION OF TRAINING

- 1) Elementary lessons Book 1 ~ 3
 - Writing practice
 - Pronunciation
 - Vocabulary
 - Basic grammar
- 2) Intermediate lessons Book 4 ~ 6
 - Strengthening and enlarging conversation skills
 - Strengthening reading and comprehension skills
 - Training for composition skills
 - Practical training for conversation and composition skills
- 3) Speech contest
- 4) Field trip
- 5) Final production

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC)

6. REMARKS

No. 258

SOUND SLIDE PRODUCTION サウンドスライド制作

1. PERIOD

May 23, 1991 to September 16, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Having one (1) to three (3) years of experience in media production for educational/instructional purposes
- 3) Expected to get a leading position in this field in future
- 4) Not more than thirty-five (35) years of age
- 5) Having a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Outline of AV Media
- 2) OHP Technique
- 3) Basic photographing
- 4) Audio Production Methodology
- 5) Basic Slide Production
- 6) Slide Production Methodology
- 7) Sound Slide Production Methodology
- 8) Video Production Methodology
- 9) Production of Multi Media Package
- 10) Multi Media Package Presentation
- 11) Observation Tour

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 259

VIDEO PRODUCTION (BASIC) ビデオ制作

1. PERIOD

September 5, 1991 to February 8, 1992 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Two to five years' experience in video program production for educational/instructional purposes
- 3) Under thirty-five (35) years of age
- 4) Having a sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Outline of Video (in comparison with other Audio Visual Media)
- 2) Basics of Video Material Production
- 3) Single-Camera Treatment I (Storyboard Shooting, Cut Editing)
- 4) Single-Camera Treatment II (A/B Roll Editing)
- 5) Animation
- 6) Production of Multi-Media Package
- 7) Observation Tour

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

1. PERIOD

February 13, 1992 to May 22, 1992 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalent and presently engaged directly or indirectly in producing of AV media or being expected to take part in this job in the near future,
- 2) Expected to get a leading position in this field in future,
- 3) Under forty (40) years of age,
- 4) Have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Basic knowledge of audio visual education
- Including planning, management and evaluation
- 2) Design, management, and evaluation of AV media programs
- 3) Knowledge and skills of AV media
- 4) Audio-visual education and computer
- 5) Basic techniques of producing audio-visual materials
- 6) Promotion of audio-visual education

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 261

TRAINING SPECIALIST FOR SUPERVISORS (SEMINAR) II

監督者訓練専門家セミナー II

1. PERIOD

May 9, 1991 to July 5, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduate or equivalent
- 2) Specialist concerned with planning and conducting foremen training in a government organization or a public corporation
- 3) Between 30 and 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and Discussion
 - Outline of human resources development in Japan
Purpose: To study economic, social and historical background, and present situations of human resources development in Japan
 - The Training for Supervisors in Japan
Purpose: To study the methods of the training for supervisors and other in-plant training
- 2) Observation Tour
- 3) Country reports presentation

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Human Resources Development Bureau, Ministry of Labour

6. REMARKS

TRAINING MANAGEMENT OF VOCATIONAL TRAINING
INSTITUTIONS (SEMINAR)

職業訓練管理セミナー

1. PERIOD

August 22, 1991 to October 18, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Presently engaged in management of a vocational training institution and be expected to work in the same field in future
- 2) Between 30 and 50 years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and Discussion
 - Human Resources Development in the field of Vocational Training
 - Management and Administration of Vocational Training Institution and Facilities
- 2) Country reports presentation
- 3) Observation Tour

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Human Resources Development Bureau, Ministry of Labour.

6. REMARKS

No. 263

HUMAN RESOURCES DEVELOPMENT ADMINISTRATION (SEMINAR)

職業能力開発行政セミナー

1. PERIOD

November 1, 1991 to December 12, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) A director of the department in a central office or equivalents, presently engaged in the human resources development administration
- 2) Between 35 and 50 years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lecture & Discussion

- Outline of human resources development administration in Japan

Purpose: To study the human resources development administration and its peripheral methods.

- Outline of contemporary labour situation in Japan

Purpose: To study economic, social and historical background, and present situations of human resources development administration in Japan

2) Observation Tour

3) Country Reports Presentation

4) Comprehensive study

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Human Resources Development Bureau, Ministry of Labour

6. REMARKS

No. 264

HIGH TECHNOLOGY RESEARCH ハイテク・リサーチ

- [A] Digital Information Processing and Application
- [B] Power Performance Analysis of Automobiles

1. PERIOD

July 25, 1991 to February 23, 1992 (7 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

[A] Three (3), [B] Two (2)

3. QUALIFICATIONS

- 1) [A] be presently engaged in computer and electronic engineering field at university, research institute, or vocational training college as professor,
[B] be presently engaged in mechanical or automotive engineering field at university, research institute, or vocational training college as professor,
- 2) be graduates from the faculty of engineering at university or graduate school,
- 3) have least five (5) years for Bachelor degree holder, three (3) years for Master degree holder of occupational experience in the field,
- 4) have a sufficient command of spoken and written English, or Japanese,
- 5) be not more than thirty-five (35) years of age,
- 6) [A] be familiar with FORTRAN language and appropriate knowledge of Fourier transfer and Z transfer which are necessary for digital signal processing.
[B] have appropriate knowledge on BASIC language and be able to make programmes freely in this language.
- 7) have specific knowledges on the theme mentioned and be able to study of his own accord.

4. DESCRIPTION OF TRAINING

- 1) Research
- 2) Report making
- 3) Study Tour

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training (IVT), Ministry of Labour

6. REMARKS

There will be an intensive Japanese language course, conducted prior to the technical training (1 month, 100 hours)

No. 265-1

VOCATIONAL TRAINING INSTRUCTORS (ELECTRICAL ENGINEERING) II

職業訓練指導員（電気工学）II

1. PERIOD

June 6, 1991 to March 22, 1992 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be presently engaged in electrical engineering field at university, research institute or vocational training centre as professor, engineer or teacher
- 2) Be university graduates with three (3) years of occupational experience in this field
- 3) Between 25 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - Theory of Electrical Machinery
 - Designing Electrical Machinery
 - Illumination Engineering
 - Power Electronics and Control of Servomotors
 - Introduction to Computer Programming
 - Electrical Measurement
 - Electrical Power Engineering
 - General Concept of Automatic Control
 - Design of Wiring Works
 - Electrical Wiring Construction
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month, 150 hours), conducted prior to the technical training.

No. 265-2

VOCATIONAL TRAINING INSTRUCTORS (ARCHITECTURAL ENGINEERING)

職業訓練指導員（建築工学）

1. PERIOD

June 6, 1991 to March 22, 1992 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Be presently engaged in architectural engineering field at university, research institute or vocational training centre as a professor, engineer or teacher
- 2) Be university graduates with three (3) years of occupational experience in this field
- 3) Between 25 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - History of Architecture
 - Building Legislation
 - Indoor Environmental Engineering
 - Building Materials
 - Reinforced Concrete Engineering
 - Building Equipment
 - Wooden Construction Methods
 - Architectural Presentation Techniques
 - Building Construction and Management
 - Building Construction
 - City Planning
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month, 150 hours), conducted prior to the technical training.

VOCATIONAL TRAINING INSTRUCTORS (ELECTRONIC ENGINEERING) II

職業訓練指導員（電子工学）II

1. PERIOD

June 6, 1991 to March 22, 1992 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Be presently engaged in electronic engineering field at university, research institute or vocational training centre as professor, engineer or teacher,
- 2) Be university graduates with three (3) years of occupational experience in this field
- 3) Between 25 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - TV Engineering
 - Semiconductor IC Technology
 - Electronic Computer
 - Electronic Components
 - Electronic Circuits
 - Electronic Measurements
 - Automatic Control
 - Digital Electronic Circuits
 - Radiowave propagation and Antennas
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month, 150 hours), conducted prior to the technical training.

No. 265-4

VOCATIONAL TRAINING INSTRUCTORS
(MECHANICAL ENGINEERING FOR INDUSTRY)

職業訓練指導員（産業機械工学）

1. PERIOD

June 6, 1991 to March 22, 1992 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be presently engaged in automotive engineering field at university, research institute or vocational training centre as professor, or teacher,
- 2) be university graduates with at least three (3) years of occupational experience in this field,
- 3) have a sufficient command of spoken and written English,
- 4) be not less than twenty-five (25), and not more than forty (40) years of age

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - Internal Combustion Engines
 - Strength of Material
 - Refrigeration and Heat Transfer
 - Automotive Engineering
 - Thermodynamics and Heat Transfer
 - Elements of Welding Procedure
 - Automotive Mechanism
 - Vibration Problems in Engineering
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month 150 hours), conducted prior to the technical training.

No. 265-5

VOCATIONAL TRAINING INSTRUCTORS
(MECHANICAL ENGINEERING FOR PRODUCTION)

職業訓練指導員（生産機械工学）

1. PERIOD

June 6, 1991 to March 22, 1992 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be presently engaged in mechanical engineering field at university, research institute or vocational training centre as professor, or teacher,
- 2) be university graduates with at least three (3) years of occupational experience in this field,
- 3) have a sufficient command of spoken and written English,
- 4) be not less than twenty-five (25), and not more than thirty-five (35) years of age

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - Machining Technology
 - Die Engineering
 - Energy Beam Processing
 - Precision Measurement
 - Strength of Materials
 - Plastic Working
 - Design of Mechanical Element
 - Materials for Mechanical Engineering
 - N. C. Equipment
 - Material Testing
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Center, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month 150 hours), conducted prior to the technical training.

No. 265-6

VOCATIONAL TRAINING INSTRUCTORS
(INDUSTRIAL DESIGN ENGINEERING)

職業訓練指導員(造形工学)

1. PERIOD

June 6, 1991 to March 22, 1992 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) be presently engaged in industrial design engineering field at university, research institute or vocational training centre as professor, or teacher,
- 2) be university graduate with at least three (3) years of occupational experience in this field,
- 3) have a sufficient command of spoken and written English,
- 4) be not less than twenty-five (25), and not more than forty (40) years of age,

4. DESCRIPTION OF TRAINING

- 1) *Lecture on Specialized Subject*
 - Materials for Woodworking, Gluing and Plywood
 - Design, Drawing and Furniture Construction
 - Wood working System in Production
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month, 150 hours), conducted prior to the technical training.

